



ग्रामीण कार्य विभाग

Rural Works Department, Govt of Bihar

DETAILED PROJECT REPORT UNDER FDR YEAR-2020-21



Name of the Road :-

PERMANENT RESTORATION OF ROAD FROM Bariol To Kahariya

DISTRICT	:	DARBHANGA	
DIVISION	:	DARBHANGA-2	
BLOCK	:	Keoti	
ACTUAL LENGTH OF ROAD	:	2.400	KM
FLOOD AFFECTED LENGTH OF ROAD	:	0.410	KM
TOTAL COST OF PROJECT	:	50.522	Lac

SUBMITTED BY:-

EXECUTIVE ENGINEER
RWD (W) DIVISION DARBHANGA-2
DARBHANGA-2

UNDER FDR

(Year-2020-21)

GENERAL ABSTRACT OF COST

Block:-

KeotiDistrict:- **DARBHANGA**Actual Length of Road:- **2.400 KM**Name of Road:- **PERMANENT RESTORATION OF ROAD FROM Bariol To Kahariya**

SL. No.	Item of Work	Amount
A	TOTAL COST OF CONSTRUCTION :	43.60474 Lacs
	Add GST @ 12% :	5.2326 Lacs
	Add Labour Cess @ 1% :	0.4360 Lacs
	Add Seigniorage Fee @ 10% on Material Cost only :	0.74879 Lacs
	TOTAL CONSTRUCTION COST INCLUDING GST, L.C & S.F. :	50.0221 Lacs
B	CONTINGENCY @ 1% FOR CONSTRUCTION COST ONLY :	0.50022 Lacs
TOTAL		50.522 Lacs


Junior Engineer
RWD(W) Div. Darbhanga-2


Asstt. Engineer
RWD(W) Div. Darbhanga-2


Executive Engineer
RWD(W) Div. Darbhanga-2

Technically sanctioned for Rs 50,02,210.00 (Rupees Fifty Lacs Two Thousand Two Hundred Ten Rupees only.)

SE
RWD(W) Circle Darbhanga

SUMMARY OF COST ESTIMATE FOR THE PROJECT

NAME OF ROAD : PERMANENT RESTORATION OF ROAD FROM Bariol To Kahariya

DISTRICT DARBHANGA

BLOCK Keoti

DIVISION DARBHANGA-2

LENGTH OF ROAD 2.400 KM

CD STRUCTURES

HUME PIPE 0

RCC CULVERT 1

BOX CELL CULVERT 0

Sl. No.	DESCRIPTION	AMOUNT (LAKHS)
1	PREPARATORY WORKS ,SITE CLEARANCE , DISMANTLING	0.000
2	EARTHWORK	0.669
3	GSB	4.413
4	WBM GRADE III	4.200
5	PRIME COAT	0.000
6	TACK COAT	0.000
7	MIX SEAL SURFACING	0.000
8	SEAL COAT	0.000
9	CC PAVEMENT	17.852
10	HARD SHOULDER	0.977
	SUB TOTAL OF PAVEMENT COST IN LACS =	28.1105
11	CROSS DRAINAGE STRUCTURES	
I	HUME PIPE	0.000
II	RCC Culvert (1 x5 x2.5M)	15.494
III	BOX	0.000
IV	CAUSEWAY	0.000
V	PROTECTION WORK	0.000
	SUB TOTAL OF CD STRUCTURES COST IN LACS =	15.494
	SUB TOTAL COST OF PROJECT IN LACS =	43.605
	ADD GST @ 12 % =	5.233
	ADD LABOUR CESS @ 1 % =	0.436
	Add Seigniorage Fee @ 10% =	0.749
	TOTAL COST OF PROJECT INCLUDING GST, L.C & S.F. IN LACS =	50.022
	CONTINGENCY @ 1% FOR CONSTRUCTION COST ONLY =	0.500
	TOTAL =	50.522

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RWD(W) Div. Darbhanga-2

AE

RWD(W) Div. Darbhanga-2

EE

RWD(W) Div.
Darbhanga-2

Name of Road : PERMANENT RESTORATION OF ROAD FROM Barilol To Kahariya

SL No.	SDB	MORD Ref.No	Description	Unit	NOS	LENGTH(m)	WIDTH(m)	HEIGHT(m)	QUANTITY(m ³)	RATE(In ₹)	(In ₹)
1	3.14	303.1	Construction of Subgrade and Earthen Shoulders								
			Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as per Technical Specification Clause 303.1.								
			Beside Flank (On Flood affected Portion)	Cum	2	410.00	1.375 Avg	0.250 Avg	281.88		
			For 1000 m lead @ 100 %						281.88	237.43	66,927.00
									A) SUB TOTAL OF CRUST =		66,927.00
2	4.1	401 (ii)	Sub Head : PAVEMENT LAYERS - GSB & WBM ITEMS								
			Granular Sub-base with Well Graded Material (Table 400.1)								
			(By mix in place method) For Grading I Material								
			Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.								
				Cum	1.00	410.00	3.750	0.100	153.75		
			Net GSB Qty						153.750	2,869.92	4,41,250.00
2	4.7	405	WBM Grading 3 with screening Material (By Mechanical Means)								
			Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with smooth wheel roller 80-100 kN in stages to proper grade and camber, applying and brooming, stone screening to fill-up the interstices of coarse aggregate, watering and compacting to the required density Grading 3 as per Technical Specification Clause 405.								
			Chainage In M								
			From								
			To								
			1700	2100							
			At CD	1500	1510						
			Total Length=						115.31		
								0.075	115.310	3,642.13	4,19,974.00
			Net WBM -3 Qty						B) SUB TOTAL OF CRUST =		8,61,224.00

Cost-Estimate for Permanent Restoration of Road

Name of Road : PERMANENT RESTORATION OF ROAD FROM Barfol To Kahariya										BLOCK : Keoti		LENGTH : 2.400 KM		AMOUNT (In ₹)
Sl. No.	SDB SL. NO	MCHD Ref.No	Description	Unit	NOS	LENGTH(m)	WIDTH(m)	HEIGHT(m)	QUANTITY(m ³)	RATE(In ₹)				
3	6.4	1500	SUB HEAD : CC PAVEMENT Cement Concrete Pavement Construction of un-reinforced plain cement thickness as per design, over a prepared sub base with 43 grade cement or any other type as per clause 1501.2.2 M 30 grade coarse and fine aggregate maximum size of aggregate not exceeding 25mm, mixed in a concrete of not less than 0.2cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel laying and fixing of 125 micron thick plythene film ,wedges ,steel plates including levelling the formwork as per drawing) spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints ,admixtures as approved, curing of primer, sealant, dowel bars, near approaches to bridge/ culvert and construction joints, admixtures as approved, curing of concrete slab for 14 days curing compound (where specified) and water finishing to lines and grade as per drawing and Technical specification clause 1501.											
On Flood affected portion (Details are as above mentioned)				cum	1	410.00	3.750	0.160	246.00			17,85,168.00		
Net Qty									246.000	7,256.78				
4	4.18	412	Hard Shouldering Laying brick soling layer on prepared sub-grade with brick on end edging according to lines, graded and cross-section shown on the drawing filling joints with sand and earth, spreading 25 mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100 kN as per Technical Specification Clause 412											
			Hard Shouldering besides CC Portion	sqm	2.00	410.00	0.250		205.00					
			New Brick Area						205.00	476.72		97,728.00		
									C) SUB TOTAL OF CC PAVEMENT =			18,82,896.00		
									TOTAL COST OF PAVEMENT IN RS. (A+B+C)=			28,11,047.00		

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RWD(W) Div. Darbhanga-2

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RWD(W) Div. Darbhanga-2

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EE
RWD(W) Div. Darbhanga-2

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount In Rs	Total material Qty. required	Total Material Amount	Add 10 % Seigniorage Fee
1	3.14	303.1	EARTHWORK Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as per Technical Specification Clause 303.1.							
			Unit = cum							
			Taking output = 100 cum							
		a)	Material							
			Compensation for earth taken from private land	cum	100.00	34.82	3482.00			
			Cost for 100 cum = a				3482.00			
			Rate per cum = (a)/100				34.82			
Total Cost cum							34.82	453.38	15786.69	1579.00
2	4.7	405	Water Bound Macadam with Stone Screening Type "B" Gr-III							
	(3-B)		WBM Grading 3							
			Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with smooth wheel roller 80-100 kN in stages to proper grade and camber, applying and brooming, stone screening to fill-up the interstices of coarse aggregate, watering and compacting to the required density Grading 3 as per Technical Specification Clause 405.							
		(A)	By Mechanical Means							
			Unit = cum							
			Taking output = 360 cum							
		a)	Material (Refer Tables 400.7, 8, 9 and 10)							
			Aggregate							
			Grading 3 53 mm to 22.4 mm @ 0.91 cum per 10 sqm for compacted thickness of 75 mm	cum	435.60	503.85	219477.06			
			Stone Screening							
			Type B 11.2 mm for Grading 3 @ 0.18 cum per 10 sqm	cum	86.40	392.53	33914.59			
			Cost for 360 cum = a				253391.65			
			Rate per cum = (a)/360				703.87			
Total Cost cum							703.87	115.31	81163.25	8116.00

Name of Road : PERMANENT RESTORATION OF ROAD FROM BARIOL TO KATHIGUDA

SL No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs	Total material Qty. required	Total material Amount	Seigniorage Fee
3	6.4	1500	CC PAVEMENT Cement Concrete Pavement Construction of un-reinforced, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14 days, using curing compound (where specified) and water finishing to lines and grade as per drawing and Technical Specification Clause 1501.							
			Unit = cum							
			Taking output = 75 cum (172.50 t)							
			(100 x 3.75 x 0.200)							
		a)	Material							
		(i)	Crushed stone coarse aggregates, grading will be as per Clause 1501.2.4.1 (Table 1500.1) of specifications @ 0.90 cum/cum of concrete	cum	67.50	572.92	38672.10			
		(ii)	Sand as per IS:383 and conforming to Clause 1500.2.4.2 @ 0.45 cum/cum of concrete	cum	33.75	175.80	5933.25			
			Rate per cum = (a)/75				594.74			
4	4.10	412	Brick Soling (With New Brick)	cum			594.74	246	146306.04	14631.00
			Laying brick soling layer on prepared sub-grade with brick on end edging according to lines, graded and cross-section shown on the drawing filling joints with sand and earth, spreading 25 mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100 kN as per Technical Specification Clause 412.							
			Unit = sqm							
			Taking output = 150 sqm							
		(a)	Material							
			Brick 1st Class	No.	8160.00	5.13	41860.80			
			Brick 1st Class on edging	No.	1100.00	5.13	5643.00			
			Fine Sand	cum	5.66	141.85	802.87			
			Cost for 150 sqm = a				48306.67			
			Rate per sqm = (a)/150				322.04			
			Total Cost	cum			322.04	205	66018.2	6602.00

5 11.4 800 & 1200 P.C.C grade M 15

Providing concrete for plain/reinforced concrete in open foundations complete as per drawings and technical specifications Clause 802, 803, 1202 & 1203

(A) Nominal mix (1:2:5:5)

Name of Road : PERMANENT RESTORATION OF ROAD FROM BARRI TO ...											
Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION		Unit	Quantity	Rate	Amount in Rs	Total material Qty. required	Amount	Selfstorage Fee
		a)	Unit = cum								
			Material								
			Cement		t	0.28	4726.20	1299.71			
			Coarse sand		cum	0.48	175.80	84.38			
			40 mm aggregate		cum	0.48	486.92	233.72			
			20 mm aggregate		cum	0.24	595.36	142.89			
			10 mm aggregate		cum	0.08	657.91	52.63			
			Cost per cum = a					1813.33			
Total Cost cum										251472.58	25147.00

6	12.5	800	P.C.C grade M 15								
		II	Plain/reinforced cement concrete in substructure complete as per drawings and technical specification Clauses 802, 804, 805, 806, 807, 1202 ans 1204								
		(A)	Nominal mix (1:2.5:5)								
		a)	Unit = cum								
			Material								
			Cement		t	0.275	4726.20	1299.71			
			Coarse sand		cum	0.48	175.80	84.38			
			40 mm aggregate		cum	0.48	486.92	233.72			
			20 mm aggregate		cum	0.24	595.36	142.89			
			10 mm aggregate		cum	0.18	657.91	118.42			
			Cost per cum = a					1879.12			
Total Cost cum										120714.72	12071.00

7	12.5	800	P.C.C grade M 20								
		II	Plain/reinforced cement concrete(M-20) in substructure complete as per drawings and technical specification Clauses 802, 804, 805, 806, 807, 1202 ans 1204								
		(A)	Nominal mix (1:2:4)								
		a)	Unit = cum								
			Material								
			Cement		t	0.33	4726.20	1559.65			
			Coarse sand		cum	0.45	175.80	79.11			
			40 mm aggregate		cum	0.36	486.92	175.29			
			20 mm aggregate		cum	0.36	595.36	214.33			
			10 mm aggregate		cum	0.18	657.91	118.42			
			Cost per cum = a					2146.80			
Total Cost cum										20008.18	2001.00

8	12.5	800	R.C.C grade M 25								
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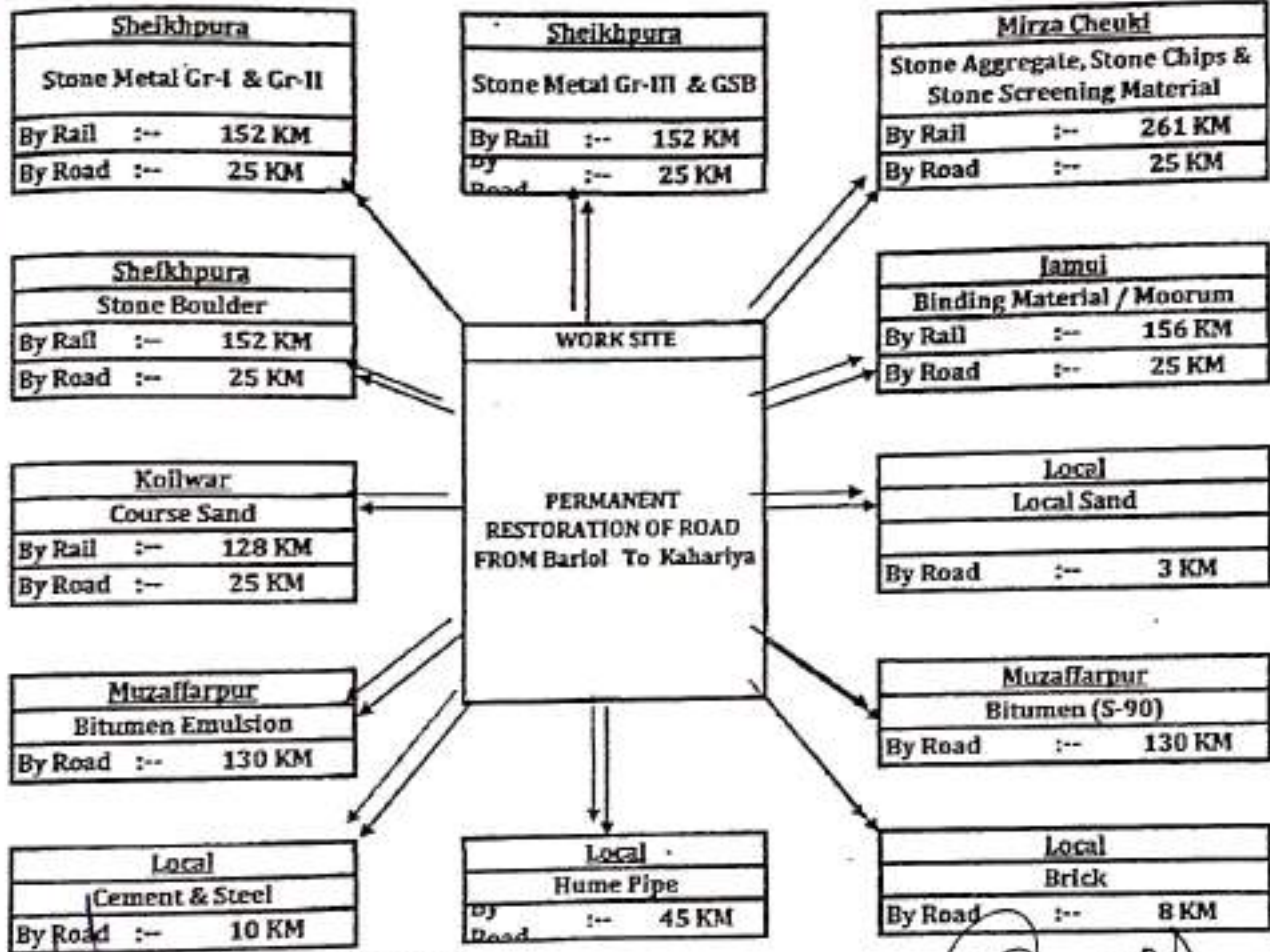
Quarry Map

Name of Road :- PERMANENT RESTORATION OF ROAD FROM Barilol To Kahariya

Block :- Keoti

District :- DARBHANGA-2

Length of the Road:- 2.400 KM



Subjected to Verification of Lead

JE

AE

E.E

SE