



ग्रामीण कार्य विभाग

Rural Works Department, Govt of Bihar

ESTIMATE FOR REPAIRING / RESTORATION / MAKING
- MOTORABLE ROADS DAMAGED DURING FLOOD

HEAD : (FDR)

YEAR 2024-25

STATE :- BIHAR

DISTRICT :- SUPAUL

BLOCK :- Raghapur

Repair of road from Situhar to Baisi Border

DETAILED REPORT

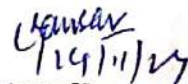
TOTAL LENGTH OF ROAD : 2.400 KM

TOTAL COST FOR MOTORABLE OF ROAD : 34.231 Lacs

SUBMITTED BY:
EXECUTIVE ENGINEER,
RWD, WORKS DIVISION,
VIRPUR.

INSPECTION REPORT FOR MOTARABLE WORK

NAME OF PIU :-		Virpur	
NAME OF BLOCK :- Raghopur		ROAD :- Repair of road from Situhar to Baisi Border	
A. FOR ROAD			
1	Damage Location /Chainage	0.05 KM	
2	Damage Lenth :-	55M	
3	Nature of Damage (Length wise)	i. Breach	
		ii. Crust Damage 55M	
		iii. Only Flank Damage	
	Whether Traffic fully /partialiy obstructed	Fully Obstructed	
4	Details of restoration		
	i. Material Being Used in Restoration	Bamboo, EC Bag, L.Sand, Brick Bats	
	ii. Equipment/Tools Being used in Restoration Works	Bamboo Piler, Excavator Bamboo Cutter EC bag Packer	
	iii. Restored Length	In Open Area :-	55M
		In Habitation Area	
	iv. If Restoration Work Done In Habitation Area Give Reason	N/A	
B. For Bridge (Size of Bridge / Culvert)			
	Damage Location /Chainage		
	No. Of Span Damage		
	Length of Span		
	Nature of Damage (pier/Abutment/ Wing Wall /approch road damage		
5	Details of restoration		
	i. Material Being Used in Restoration		
	ii. Equipment/Tools Being used in Restoration		
	iii. Restored Length		
	Overall Grade of Restoration Work (Satisfactory (✓) Unsatisfactory ())		


 Signature of Inspector
 (Official Seal)
 E.E. RWD,
 Bivenigani

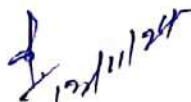
प्रतिवेदन

पथ का नाम :- सिठहर से बायली बार्डर तक का मरम्मत कार्य
कार्य का नाम :- सिठहर से बायली बार्डर तक का अस्थायी मरम्मत (घाट के कारण)
में बाढ़ से क्षतिग्रस्त भाग में यातायात चालू करने का कार्य।

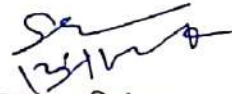
संलग्न प्राक्कलन 2024 को प्रखण्ड में आयी भीषण बाढ़ से क्षतिग्रस्त सिठहर से बायली बार्डर तक
में बाढ़ क्षतिग्रस्त मरम्मत मद से यातायात चालू करने हेतु तैयार किया गया है जिसकी
प्राक्कलित लागत ₹ 34,23,094 लाख है। उक्त पथ
का निर्माण MR- 3054 योनान्तर्गत हुआ है एवं योजना अनुरक्षण अवधि में नहीं है।

पथ के कटे (क्षतिग्रस्त) भाग में आवश्यकता
अनुसार Hume Pipe, Bamboo, लोकल बालू एवं Brick Bats देने के बाद यातायात चालू कराया
गया है। पथ के विभिन्न हिस्से में कराये गये कार्य का विवरणी स्पष्ट रूप से प्राक्कलन में
दर्शाया गया है।

प्राक्कलन मदों का दर वर्तमान अनुसूचित दर के अनुरूप है।


कनीय अभियंता,
ग्रामीण कार्य विभाग,
कार्य प्रशाखा, रायपुर।


सहायक अभियंता,
ग्रामीण कार्य विभाग,
कार्य अवर प्रमण्डल, रायपुर।


कार्यपालक अभियंता,
ग्रामीण कार्य विभाग,
कार्य प्रमण्डल, रायपुर।

Bill of Quantity					
NAME OF ROAD :-			Repair of road from Situhar to Baisi Border		
DISTRICT :-			Supaul		
BLOCK :-			Raghopur		
Sl. No.	DESCRIPTION OF ITEMS	QUANTITY	UNIT	RATE (Rs.)	AMOUNT (Rs.)
1	Filling of local sand obtained from river bed, watering & ramming, all complete job as per specification & direction of Engineer-in-charge	2310.40	CUM	580.07	1340194.00
2	Labour for cutting 62 mm to 75mm dia bamboo piles to size and making shoes & driving by jet machine etc. all complete job as per specification & direction of Engineer- in -charge.	4070.00	M	53.18	216443.00
3	Labour for fitting & fixing 62 mm to 75 mm 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 all complete job as per specification & direction of Engineer-in-charge.	444.00	M	96.06	42651.00
4	Supplying bamboo 75 mm dia 6 m to 8 m long at complete job as per specification and direction of E / I. wire including cost of G.I wire or nails etc all complete job as per specification & direction of Engineer-in-charge.	752.00	Each	168.68	126847.00
5	Supplying of EC bag, filling of local sand stitching and placing in position as the direction of Engineer-in-charge.	28191.18	Each	37.43	1055196.00
6	Supply and Carriage of brick bats upto 8 km breach and placing in breaches and lying of bats, all complete job.	37.80	CUM	2049.64	77476.00
7	Supplying and carriage of hume pipe 1000 mm dia , all complete job.	0.00	RM	3669.12	0.00
		A) SUB TOTAL =			2858807.00
		TOTAL COST =			2858807

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SUMMARY OF COST ESTIMATE FOR PROJECT

GENERAL ABSTRACT OF COST

HEAD :- FDR
 YEAR :- 2024-25
 NAME OF ROAD :- Repair of road from Situhar to Baisi Border
 DISTRICT :- Supaul
 BLOCK :- Raghapur
 Length of Road:- 2.400 km
 Length of Cutting in mtr :- 58 m

Sl No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
1	Filling of local sand obtained from river bed, watering & ramming, all complete job as per specification & direction of Engineer-in-charge	CUM	2310.40	580.07	1340194.00
2	Labour for cutting 62 mm to 75mm dia bamboo piles to size and making shoes & driving by jet machine etc. all complete job as per specification & direction of Engineer- in -charge.	MTR	4070.00	53.18	216443.00
3	Labour for fitting and fixing 62mm to 75 mm dia bamboo runners in position at every vertical pile with 150 mm long nails or 38 wire including cost of G.I wire or nails etc all complete job as per specification & direction of Engineer-in-charge.	MTR	444.00	6.12	2717.00
4	Supplying bamboo 75 mm dia 6 m to 8 m long at complete job as per specification and direction of E / I. wire including cost of G.I wire or nails etc all complete job as per specification & direction	Each	752.00	168.68	126847.00
5	Supplying of EC bag, filling of local sand stitching and placing in position as the direction of Engineer-in-charge.	Each	28191.18	37.43	1055196.00
6	Supply and Carriage of brick bats upto 8 km breach and placing in breaches and lying of bats, all complete job.	CUM	37.80	2049.64	77476.00
7	Drone videography			15000.00	15000.00
				Total =	2833873.00
				Add GST @ 18%	510097.00
				Add L.Cess @ 1%	28339.00
				Add Seignorage Fee	50785.00
				Grand Total =	₹ 34,23,094

Grand Total= 3423094.00

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Technically Approved to Rs 3423094= (Thirty four
Lacs twenty three thousand Ninety four) only

ASL
15.11.24

S.E RWD

Madhepura

Calculation of Seigniorage Fees					
NAME OF ROAD :-		Repair of road from Situhar to Baisi Border			
DISTRICT :-		Supaul			
BLOCK :-		Raghopur			
SL No.	DESCRIPTION OF ITEMS	Unit	QUANTITY	RATE (Rs.)	AMOUNT (Rs.)
1	Filling of local sand obtained from river bed, watering & ramming, all complete job as per specification & direction of Engineer-in-incharge	cum	2310.40	143.32	331127.00
2	Labour for fitting empty cement bags with loocal sand, stitching the bags and placing in Nylon crate of size (1 m X 1 m X 1 m)with lead of 150 M including supply of sutli etc. at site in dry portion all complete as per approved design, specification and direction of E/I	cum	0.00	143.32	0.00
3	Supplying of EC bag, filling of local sand stitching and placing in position as the direction of Engineer-in-charge.	cum	958.50	143.32	137372.00
4	Supply and Carriage of brick bats upto 8 km breach and placing in breaches and lying of bats, all complete job.	cum	37.80	1041.00	39350.00
			A) SUB TOTAL =		507849.00
Seigniorage Fees @10% of Basic Amount =					50785

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NAME OF ROAD :-		Repair of road from Situhar to Baisi Border							
DISTRICT :-		Supaul							
BLOCK :-		Raghopur							
Length of Cutting:-		58.00 m							
Sl. No.	DESCRIPTION OF WORK	Unit	Nos.	L(m)	B(m)	D(m)	QUANTITY	RATE (Rs.)	AMOUNT (Rs.)
1	Filling of local sand obtained from river bed, watering & ramming, all complete job as per specification & direction of Engineer-in-charge								
	At ch:50 m	cum	1	58.00	(7.5+6.5)/2	3.50	1421.00		
	At ch:50 m	cum	1	52.00	(6.5+3.5)/2	2.50	650.00		
	At ch:50 m	cum	1	38.00	(3.5+2.5)/2	2.10	239.40		
		cum	total qty :-				2310.40	580.07	13,40,194.00
2	Labour for cutting 62 mm to 75mm dia bamboo piles to size and making shoes & driving by jet machine etc. all complete job as per specification & direction of Engineer- in -charge.								
	At ch:50 m		1	58/2	5.50		1595.00		
	At ch:50 m		1	52/2	5.50		1430.00		
	At ch:50 m		1	38/2	5.50		1045.00		
		Mtr.	total qty:-				4070.00	53.18	2,16,443.00
3	Labour for fitting and fixing 62mm to 75 mm dia bamboo runners in position at every vertical pile with 150 mm long nails or 38 wire including cost of G.I wire or nails etc all complete job as per specification & direction of Engineer-in-charge.								
	At ch:50 m		1	58.00	3.00		174.00		
	At ch:50 m		1	52.00	3.00		156.00		
	At ch:50 m		1	38.00	3.00		114.00		
		Mtr.	total qty:-				444.00	6.12	2,717.00

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4	Supplying bamboo 75 mm dia 6 m to 8 m long at complete job as per specification and direction of Engineer-In-charge.							
	At ch:50 m		1	4514.00	/6	752.00	168.68	1,26,847.00
5	Supplying of EC bag, filling of local sand stitching and placing in position as the direction of Engineer-in-charge.							
	At ch:50 m	cum	1	58.00	6.00	1.5	522.00	
			1	52.00	4.50	1.5	351.00	
			1	38.00	1.50	1.5	85.50	
	Total No of E C Bags(3.4cum=100Bags) =		958.50	/	0.034	28191.18		
		Each	Say No of Bage :-			28191.18	37.43	10,55,196.00
6	Supply and Carriage of brick bats upto 8 km breach and placing in breaches and lying of bats, all complete job.							
	At ch:50 m	cum	1	42.00	(3.5+2.5)/	0.30	37.80	
		cum	total qty :-			37.80	2049.64	77,476.00
						A) SUB TOTAL =		2818873.00
						TOTAL COST =		2818873.00

13/11/24

Junior Engineer

Asstt. Engineer

Executive Engineer

Analysis for Carriage by Road & Rail

Name of Road:-

DETAILED ESTIMATE FOR TEMPORARY RESTORATION OF ROAD FROM

Sitohar to Baisi Border

District:-

Supant

Block:-

Rogha-pur

SI No	Item with Source	Unit	Source Up to	Carriage Cost & Lead in Km			Loading & Unloading Cost	Carriage Cost by Rail Head	Total
				Pucka / Surface	Katcha				
1	Stone Metal Gr-I & Gr-II	Cum	Sheikhpura	8.00 x 11.70 x 35.00 Km = Rs 713.73 4.59	8.00 x 28.20 x 0.00 Km = Rs 0.00 4.59		89.90	1243.54	Rs. 2047.17
2	Stone Metal Gr-III / GSB	Cum	Sheikhpura	8.00 x 11.70 x 35.00 Km = Rs 656.51 4.99	8.00 x 28.20 x 0.00 Km = Rs 0.00 4.99		89.90	1166.59	Rs. 1913.00
3	Stone Aggregate / Chips	Cum	Mirzachowki	8.00 x 11.70 x 35.00 Km = Rs 656.51 4.99	8.00 x 28.20 x 0.00 Km = Rs 0.00 4.99		89.90	1166.59	Rs. 1913.00
4	Stone Aggregate / Chips	Cum	Mirzachowki	8.00 x 11.70 x 35.00 Km = Rs 656.51 4.99	8.00 x 28.20 x 0.00 Km = Rs 0.00 4.99		89.90	1248.39	Rs. 1994.80
4	Stone Boulder	Cum	Sheikhpura	8.00 x 11.70 x 35.00 Km = Rs 682.50 4.80	8.00 x 28.20 x 0.00 Km = Rs 0.00 4.80		89.90	1201.54	Rs. 1973.94
5	Coarse Sand	Cum	Jagdishpur	8.00 x 7.47 x 225.00 Km = Rs 2694.59 4.99	8.00 x 19.22 x 0.00 Km = Rs 0.00 4.99		104.88		Rs. 2799.47
6	Binding Material/Moorum	Cum	Sheikhpura	8.00 x 7.47 x 35.00 Km = Rs 348.60 6.00	8.00 x 28.20 x 0.00 Km = Rs 0.00 6.00		104.88		Rs. 453.48
7	Local Sand	Cum	Local	8.00 x 7.47 x 2.00 Km = Rs 23.95 4.99	8.00 x 17.82 x 1.00 Km = Rs 28.57 4.99		104.88		Rs. 157.40
8	Brick	1000 Nos	Local	8.00 x 7.94 x 7.00 Km = Rs 222.32 2.00	8.00 x 19.22 x 1.00 Km = Rs 76.88 2.00		417.46		Rs. 716.66
9	Cement	MT	Local	8.00 x 7.94 x 35.00 Km = Rs 277.90 8.00	8.00 x 19.22 x 0.00 Km = Rs 0.00 8.00		299.38		Rs. 577.28
10	Steel	MT	Local	8.00 x 7.94 x 35.00 Km = Rs 277.90 8.00	8.00 x 19.22 x 0.00 Km = Rs 0.00 8.00		318.00		Rs. 595.90
11	Bitumen Emulsion	MT	Barauni	8.00 x 7.94 x 220.00 Km = Rs 1746.80 8.00	8.00 x 19.22 x 0.00 Km = Rs 0.00 8.00		344.50		Rs. 2091.30
12	Bitumen	MT	Muzaffarpur	8.00 x 7.94 x 178.00 Km = Rs 1413.32 8.00	8.00 x 19.22 x 0.00 Km = Rs 0.00 8.00		344.50		Rs. 1757.82
13	Hume Pipe (1000 mm)	m	Karjain	8.00 x 7.94 x 106.00 Km = Rs 673.31 10.00	8.00 x 19.22 x 0.00 Km = Rs 0.00 10.00		73.32		Rs. 746.63
14	Hume Pipe (600 mm)	m	Karjain	8.00 x 7.94 x 106.00 Km = Rs 269.32 25.00	8.00 x 19.22 x 0.00 Km = Rs 0.00 25.00		31.42		Rs. 300.74
15	Hume Pipe (300 mm)	m	Karjain	8.00 x 7.94 x 106.00 Km = Rs 112.22 60.00	8.00 x 19.22 x 0.00 Km = Rs 0.00 60.00		31.42		Rs. 143.64
16	Brick Bats	Nos.	Local	3.60 x 18.64 x 7.00 Km = Rs 208.80 2.25	3.60 x 66.03 x 2.00 Km = Rs 211.30 2.25		227.60		Rs. 647.70

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Cost of Haulage Excluding Loading & Unloading as per SOR

Type of Road	* Per Ton. Km by Tipper	* Per Ton. Km by Truck
For Surface Road	11.70	7.94
Unsurface Gravel Road	14.00	9.55
Kachha Road	28.20	19.22

* Subjected to Verification of Lead

Type of Road	* Per Ton. Km by	* Per Ton. Km by Tractor
For Surface Road		18.64
Unsurface Gravel Road		23.29
Kachha Road		64.03

Summary of Carriage Cost			
Sl. No.	Particulars	Unit	Amount
1	Gr-III GSB	Cum	1913.00
2	Stone Metal Below 40 mm	Cum	1913.00
3	Stone Chips	Cum	1913.00
4	Screening Materials	Cum	1913.00
5	Gr-II	Cum	2047.17
6	Stone Metal above 40 mm	Cum	2047.17
7	Binding Material (Moorum)	Cum	453.48
8	a) Coarse Sand	Cum	2799.47
9	b) Coarse Sand at Site	Cum	3293.47
10	c) Local sand	Cum	157.40
11	d) Local Sand at Site	Cum	300.72
12	Boulder	Cum	1973.94
13	a) Cement	Ton	577.28
14	b) Cement at Site	Ton	6427.68
15	Geo Bags	Nos.	238.20
16	Bitumen (S-90) (FROM MUZAFFARPUR)	Ton	1757.82
17	Bitumen Emulsion SS & RS (FROM BARAUNI)	Ton	2091.30
18	a) Hume Pipe NP 3 (600 MM DIA)	m	300.74
19	b) Hume pile (600 dia) at site	m	2875.55
20	a) Hume Pipe NP 3 (1000MM DIA)	m	746.63
21	b) Hume Pipe NP 3 (1000MM DIA) at site	m	3504.85
22	Steel	Ton	595.90
23	Brick	per 1000	716.66
24	Brick Bats/Thama metal	Cum	647.70

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Junior Engineer
RWD (W) Division, Virpur

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Assistant Engineer
RWD (W) Division, Virpur

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Executive Engineer
RWD (W) Division, Virpur

SUMMARY OF RATE				
Sl. No.	Ref. Code No.	Description of Labour	Rate (Rs.)	Unit
1		Filling E.C. Bags	629.20	%nos.
2		Placing E.C Bags	911.00	%nos.
3		Filling E.C Bags and Placing	1553.80	%nos.
4		Filling Geo. Bags	26.40	each
5		Placing Geo Bags	34.30	each
6		Filling Geo Bags and Placing	81.00	each
7		Filling E.C Bags and Placing in N.C	388.50	each
8		Filling E.C Bags and Placing in B.A.Wire Crates	1243.00	each
9		Filling Geo Bags and Placing in N.C	364.20	each
10		Filling Geo Bags and Placing in B.A.Wire Crates(Beggy)	1638.90	each
11		Filling Geo Bags and Placing in B.A.Wire Crates(Box))	2003.10	each
12		Filling Geo Bags and Placing in Gabbin 1.8x1.8x0.5	1092.60	each
13		Filling Geo Bags and Placing in Gabbin 1.8x1.8x0.6	728.40	each
14		Already Filled E.C Bags Placing in N.C	231.15	each
15		Already Filled E.C Bags Placing in B.A.Wire crates	739.68	each
16		Already Filled Geo Bags Placing in N.C	205.80	each
17		Already Filled Geo Bags Placing in B.A.Wire Crates(Beggy)	926.10	each
18		Already Filled Geo Bags Placing in B.A.Wire Crates(Box))	1131.90	each
19		Already Filled Geo Bags Placing in Gabbin 1.8x1.8x0.5	617.40	each
20		Already Filled Geo Bags Placing in Gabbin 1.8x1.8x0.6	411.60	each
21		Supply of bamboo 75mm dia	162.70	each
22		Carriage of bamboo 75mm dia lead 5km us	8.70	each
23		Supply of bamboo 100 mm dia	173.70	each
24		Carriage of bamboo 100 mm dia lead 5km us	9.30	each
25		Supply of binding wire	75.04	Kg
26		Laying of porcupine Without boat	834.80	each
27		Laying of porcupine with boat	877.90	each
28		Bamboo piling with jet pump	38.20	each
29		Tree spur	358.00	each
30	M-189	Water	56.20	KL
31	e(ii)	Brick Bats	1041.00	per cum
32	M-006	Local/Fine Sand	143.32	per cum
33		Nails	55.84	per kg
34	222(i)	Bamboo 75mm dia 6m to 8m long	117.65	each
35	232	Sutali	19.75	per kg
36	M-120	Coarse Sand	494.00	per cum
	M-121	Sand (Fine)	143.32	per cum
37	M-081	Cement	5850.40	per mt
38		HP 1000mm dia NP3	2758.22	per mt
39		HP 600mm dia NP3	2574.81	per mt
40	M-159	Sand Bags (Cost of sand and empty cement bag)	8.46	per nos..
41	275	Old empty cement bag(synthetic)(Annexure-I)	292.00	per %nos.
42	276	Nylon Crate of size 1mx1mx1m	39.85	Each
43	M-017	Aggregate 40 mm	494.15	Cum
44	M-016	Aggregate 20 mm	604.91	Cum
45	M-015	Aggregate 10 mm	668.8	Cum
46	M-047	Cement Primer	115.16	litre
47	M-103	Paint (Synthetic Enamel)	516.42	litre
48	M-150	Well Graded Material for Sub-Base - Grading I 53 mm to 9.5 mm	516.42	Cum
49	M-151	Well Graded Material for Sub-Base - Grading II 9.5 mm to 2.36 mm	411.33	Cum
50	M-152	Well Graded Material for Sub-Base - Grading III 2.36 mm below	185.94	Cum
51	M-105	Polythene sheet (125 micron)	14.35	Sqm
52		G.I. wire 3.15 mm dia	69.3	per kg
53		Compensation for earth taken from private land	34.81	Cum
54		Stitching Role	30	Nos.

BASIC RATES
(A) Labour

Sl. No.	Description of Labour	Unit	Rate (Rs.)
L-01	Bhisti	day	373.00
L-02	Bitumen Sprayer	day	393.00
L-03	Blacksmith	day	503.00
L-04	Blaster	day	619.00
L-05	Carpenter 1st Class	day	503.00
L-06	Carpenter 2nd Class	day	503.00
L-07	Chips spreader	day	449.00
L-08	Chiseller	day	577.00
L-09	Dresser (Skilled)	day	472.00
L-10	Driller	day	449.00
L-11	Electrician	day	503.00
L-12	Fitter	day	511.00
L-13	Mason (1st class)	day	503.00
L-14	Mason (2nd Class)	day	449.00
L-15	Mate	day	397.00
L-16	Mazdoor (Unskilled)	day	373.00
L-17	Mazdoor (Semi skilled)	day	388.00
L-18	Mazdoor (Skilled)	day	472.00
L-19	Painter (1st class)	day	476.00
L-20	Plumber	day	476.00
L-21	Surveyor	day	454.00
L-22	White Washer	day	476.00

BASIC RATES
(A) Labour

Sl. No.	Description of Labour	Unit	Rate (Rs.)
L-01	Bhisti	day	373.00
L-02	Bitumen Sprayer	day	393.00
L-03	Blacksmith	day	503.00
L-04	Blaster	day	619.00
L-05	Carpenter 1st Class	day	503.00
L-06	Carpenter 2nd Class	day	503.00
L-07	Chips spreader	day	449.00
L-08	Chiseller	day	577.00
L-09	Dresser (Skilled)	day	472.00
L-10	Driller	day	449.00
L-11	Electrician	day	503.00
L-12	Fitter	day	511.00
L-13	Mason (1st class)	day	503.00
L-14	Mason (2nd Class)	day	449.00
L-15	Mate	day	397.00
L-16	Mazdoor (Unskilled)	day	373.00
L-17	Mazdoor (Semi skilled)	day	388.00
L-18	Mazdoor (Skilled)	day	472.00
L-19	Painter (1st class)	day	476.00
L-20	Plumber	day	476.00
L-21	Surveyor	day	454.00
L-22	White Washer	day	476.00

BASIC RATES
(C) USAGE RATES OF PLANT & MACHINERY

Sr. No.	Description of		Output of Machine		Usage Rates in Rs.	
	Machine	Activity	Unit	Output	Unit	Rate
PM-008	Dozer - D 175 HP	Dozing cutting	cum/h	200.00	per hour	4,249.00
			cum/h	100.00		4,249.00
PM-013	Hydraulic Excavator 0.9 cum	Excavation	cum/h	100.00	per hour	2,272.00
	Hire Charge of stitching machine		Day	50.00	per Day	50.00
	Hire Charge of Manual Trolley		Day	50.00	per Day	50.00
	Hire Charge of 3KVA generator		Hour	74.00	per Hour	74.00
PM-017	Front end-loader 1 cum bucket capacity	Loading Aggregates	cum/h	25.00	per hour	2,033.00
		Loading Soil	cum/h	60.00		2,033.00
PM-032	Motor Grader	Scarifier & levelling	cum/h	200.00	per hour	4,403.00
	Tractor Mounted Grader			50.00		1,100.75
	Time taken for onward haulage with load		Hour	612.00	per Hour	612.00
	Time taken for empty return trip.		Hour	612.00	per Hour	612.00
PM-033	Needle vibrator	Vibrating cement concrete mix	cum/h	3.50	per hour	386.00
PM-035	Paver finisher	Laying/spreading	Cum/h	40.00	per hour	2,141.00
PM-086	Plate compactor	Compaction	cum/h		per hour	469.70
PM-087	Plate vibrator	Compaction	cum/h		per hour	469.70
PM-088	Screed vibrator	Compaction	cum/h		per hour	102.64
PM-044	Smooth wheeled 80-100 kN tandem roller	Compaction of Sub-base/ Asphalt	cum/h	30.00	per hour	1,978.00
PM-045	Stone crusher (Integrated) of 200 TPH	Crushing of Spalls	t/h	200.00	per hour	27,581.30
PM-046	Three wheeled 80-100 kN Static Roller	Compaction/ Rolling			per hour	1,518.00
		Earth:- Embankment or sub-grade	cum/h	80/70		1,518.00
		Sub-base G-I	cum/h	10.00		1,518.00
		Sub-base G-II/G-III	cum/h	8.00		1,518.00
		WMM	cum/h	16.00		1,518.00
PM-047	Tipper 5.5 cum/10 t	Carriage	cum/trip	5.50	per hour	1,426.00
PM-048	Tractor with Disc Harrows	Pulverisation of soil	cum/h	80.00	per hour	549.10
PM-049	Tractor with ripper @ 60 cum per hour	Ripping Pavements, uprooting trees	cum/h	60.00	per hour	629.00

Sr. No.	Description of		Output of Machine		Usage Rates in Rs.	
	Machine	Activity	Unit	Output	Unit	Rate
PM-050	Tractor with trolley/with Grading equipment	Transportation of materials	t/trip	3 to 5	per hour	629.00
PM-051	Tractor with Rotavator	Scarifier	cum/h	25.00	per hour	573.20
PM-052	Truck 10 t capacity	Carriage	cum/trip	5.50	per hour	934.50
PM-053	Vibratory roller 80-100 kN	Compaction of soil WMM	cum/h	100.00	per hour	2,338.00
		Compaction of BM	cum/h	60.00		2,338.00
PM-054	Water tanker 6 kl capacity (Truck Mounted)	Carriage of water	litre / h	12000.00	per hour	752.00
PM-055	Wet mix plant (Pug Mill)	Wet Mix	cum/h	25.00	per hour	1,822.30

Analysis of Rate								
SI No.	SOR No.	Description	Unit	Qty	Rate(Rs.)	Amount (Rs.)		
Carriage of materials (By Tractor)								
1	1.4	Cost of Haulage excluding Loading & Unloading						
	RCD	Haulage of materials by Tractor excluding cost of loading, unloading and stacking.						
		Unit = t km						
		Taking output 360 Tonne load and lead 10 km = 36.0 t.km						
		Case-I: surfaced Road						
		Speed with load: 15 km per hour						
		Speed while returning empty: 25 km per hour						
		a) Machinery						
		Tractor 3.6 t capacity						
		Time taken for onwads haulage with load	hour	0.667	629.00	419.54		
		Time taken for empty return trip	hour	0.400	629.00	251.60		
		Total				671.14		
		Add OH@12%				-		
						671.14		
		Rate per Ton.km				18.64		
		Case-II: Unsurfaced Gravel Road						
		Speed with load: 12 km/hour						
		Speed for empty return trip: 20 km/hour						
		a) Machinery						
		Tractor 3.6 t capacity						
		Time taken for onwads haulage with load	hour	0.833	629.00	523.96		
		Time taken for empty return trip	hour	0.500	629.00	314.50		
		Total				838.46		
		Add OH@12%				-		
						838.46		
		Rate per Ton.km				23.29		
		(c) Case-III: Katcha Track and Track in River Bed / Nallah Bed and Choe Bed						
		Speed with load : 10 km / hour						
		Speed with returning empty : 15 km / hour						
		(a) Machinery						
		Tipper 10 tonnes or 5.5 cum capacity	hour	1.000	1,426.00	1,426.00		
		Time taken for empty return trip	hour	0.667	1,426.00	951.14		
		Total				2,377.14		
		Add OH@12%				-		
		Cost for 36.0 t.km =a+b				2,377.14		
		Rate per Ton.km				66.03		
2	6.6.1.	Labour for laying Brick bats /dry graded jhama khoa or stone filter under Brick Pitching or Boulder pitching in slope or apron including light ramming etc. all complete job as per approved design, specification and direction of E/I						
	WRD	Unit = Per Cum						
		Taking output= 2.832 Cum						
		a) Labour						
		Mazdoor (Unskilled)	Nos	3.00	373.00	1,119.00		
		b) Overheads @ 12% on (a)				0.00		
		Rate for 2.832 Cum				1,119.00		
		Rate Per Cum				395.13		
3	1.1	Loading and Unloading of Stone Boulder, Stone aggregate ,Sand, Kankar,Moorum , Brick Bats and Sand etc.						
	RCD	Unit = P:1 Cum						
		Taking output= 2.25 Cum						
		Time required for						
		i) Positioning of tipper at unloading point	day	1 Min				
		ii) Loading by front end loader 1 cum bucket capacity @ 25 cum per hour	day	5Min				
		iii) Maneuvering, reversing, dumping and turning for return		0Min				
		iv) Waiting time, unforeseen contingencies etc	hour	0Min				
		Total		6Min				
		a) Labour						
		Mate	day	0.03	397.00	11.91		
		Mazadoor for Loading and unloading	day	0.72	373.00	268.56		
		b) Machinery						
		Tractor 3.6 t capacity	Hour	0.10	629.00	62.90		
		Front end loader 1 cum bucket capacity @ 25 cum per hour	Hour	0.08	2,033.00	168.74		
						512.11		
		Add OH@12%				-		
						512.11		

SI No.	SOR No.	Description	Unit	Qty	Rate(Rs.)	Amount (Rs.)
						227.60
		Rate per Cum=(a+b+c)/2.25				
		Note:- Unloading will be done Manually.				
4	9.3	1100 Laying Reinforced Cement Concrete Pipe NP3 as per design in Single Row . Prpvding and Laying Reinforced cement concrete pipe NP3 for culverts on first class bedding of granular material in single row including fixing collar with cement mortar 1:2 but excluding excavation, protection works, backfilling, concrete and masonry works in head walls and parapets .				
		1000 mm dia Hume Pipe				
		Unit=m				
		Taking Output=7.5 m (3 pipes of 2.5 m length each)				
		a Material				
		Sand at site	cum	0.04	3,293.47	131.74
		Cement at site	ton	0.03	6,427.68	192.83
		RCC pipe NP3 pipe including collar at site	m	7.50	3,504.85	26,286.38
		b Labour				
		Mate	day	0.09	397.00	35.73
		Mason (1 class)	day	0.25	503.00	125.75
		Mazdoor(Unskilled)	day	2.00	373.00	746.00
						27,518.42
		Add OH@12%				-
						27,518.42
		Cost for 7.50 m =				27,518.42
		Rate per M=				3,669.12
5		(Providing and laying of brick bats obtained from chimney with machnical means with all spreading gradding to required slope and compacted at OMC to achieve required density with all comple:ed as per direction of E/I)				
		Taking out put=100 cum				
		a) Labour				
		Cost of Labour for Pitching and Light Ramming as per WRD SOR 6.6.1 (with OH)	day	1.00	360.94	360.94
		b) Materials				
		Bricks Bats -Basic Rate Taken From RCD S.O.R. Schedule-M:11-5(iii) dt.-30.01.2024	Cum	1	1041.00	1041.00
		Add:Carriage Charge for Brick bats				647.70
		Total Cost				2,049.64
		NET TOTAL COST PER CUM				2,049.64
		SAY Rs				2,049.64
6	5.7.7	Labour for cutting 62 mm to 75 mm dia sal bamboo piles to size and making shoes and driving etc.complete job as per specification and direction of E / I.				
	WRD	Unit :- Per M				
		Taking Out put:- 30.50 Mtr (Assuming 20 nos. pile sunk 1.525 mtr deep) Total depth sunk 30.50 meter				
		(a) Labour				
		Carpenter Gr II	Nos	1.00	503.00	503.00
		Unskilled mazdoor for pilling	Nos	3.00	373.00	1,119.00
						1,622.00
		Overheads @ 12%				-
						1,622.00
		Rate Per M				53.18
7	5.7.8	Providing fitting and fixing split bamboo woven chachari in position with 20 swg G.I. wire or 75 mm to 100 mm long nails alternatively including cost of G.I. wire 3.15 mm dia or nails complete job as per specification and direction of E / I.				
		Unit :- Per M2				
		Taking Out put:- 9.30 Sqm (Assuming strip of 3.05x3.05 = 9.30 sqm)				
		a Material				
		1 75 mm to 100mm long nail	kg	0.25	55.84	13.96
		2 Bamboo -75mm dia to 62 mm dia				
		Bamboo @75mm = 3050/75 = 40.67				
		Say=41Nosx3.05=125.05M				
		Add for Lower Binder of chachari				
		10x3.75=30.50M				
		Runner @150mmc/c=7x3.05=21.35M				
		Total length of Bamboo=176.9M				
		Total No of Bamboo=176.9/6=30No	No	30	117.65	3529.5
		b Labour				
		Carpenter Gr II	Nos	1.00	503.00	503.00

Sl No.	SOR No.	Description	Unit	Qty	Rate(Rs.)	Amount (Rs.)
		Unskilled mazdoor for pilling	Nos	1.00	373.00	373.00
		Overheads @ 12% on labour charge (345.00+287.00)				
		Rate Per M2				4419.46
						475.21
8	5.7.8	Labour for fitting and fixing split bamboo woven chachari in position with 20 swg G.I. wire or 75 mm to 100 mm long nails alternatively including cost of G.I. wire 3.15 mm dia or nails complete job as per specification and direction of E / I.				
	WRD	Unit :- Per M2				
		Taking Out put:- 9.30 Sqm				
		(Assuming strip of 3.05x3.05 = 9.30 sqm)				
		(a) Material				
		G.I. wire 3.15 mm dia	Kg	0.250	69.30	17.33
		(b) Labour				
		Carpenter Gr II	Nos	1.00	503.00	503.00
		Unskilled mazdoor for pilling	Nos	1.00	373.00	373.00
		Overheads @ 12%				893.33
						893.33
		Rate Per M2				893.33
						96.06
9	5.7.9	Labour for fitting and fixing 62mm to 75 mm 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 complete job as per specification and direction of E / I.				
	WRD	Unit :- Per M				
		Taking Out put:- 30.50 Mtr				
		(a) Materials				
		Cost of 150 mm long nails	Kg	0.50	55.84	27.92
		(b) Labour				
		Carpenter Gr II	Nos	0.13	503.00	65.39
		Unskilled mazdoor for pilling	Nos	0.25	373.00	93.25
		Overheads @ 12%				186.56
						186.56
		Rate Per M				186.56
						6.12
10		Supplying bamboo 75 mm dia 6 m to 8 m long at..... complete job as per specification and direction of E / I.				
		Taking Out put:- 115 nos				
		(a) Material				
		Supplying bamboo 75 mm dia 6 m to 8 m long (Cost of bamboo)	Nos	115	162.70	18,710.50
		Add: Carriage Charge for Bamboo				292.22
		Add Labour for laying Bamboo				395.13
		Overheads @ 12%				19,397.85
						19,397.85
		Rate Per each Bamboo				19,397.85
						168.68
11	5.7.40.1	Labour for filling empty cement bags with local sand, stitching the bags and placing including supply of sutli etc. all complete as per approve. design, specifications and direction of E/I				
	WRD	Unit :- Per % nos				
		Taking Out put:- 100 nos				
		(a) Supplying of Sand bags (Cost of sand and Empty cement bag)	Nos	100	8.46	846.00
		Carraige cost for Local sand (100 no. of Bags=100x0.034m3)	cum	3.4	300.72	1022.45
					Total	1868.45
		(b) For filling & stitching & stacking				
		(a) Unskilled mazdoor for filling sand into bags and sewing	Nos	2	373	746.00
		(b) Sutali	Kg	0.5	19.75	9.88
					Total	755.88
		(c) Labour rate for Carring & Placing to work site of E.C.Bags				
		(a) Unskilled mazdoor for carring filled bags and placing to work site	Nos	3	373	1119.00

SI No.	SOR No.	Description	Unit	Qty	Rate(Rs.)	Amount (Rs.)
		Total (A+B+C)=				3743.32
		Add overhead chrage @12%				0.00
						3743.32
		Total Net Rs.				3743.32
		Rate per %				37.43
		Sand Each Bag			Say	Rs 37.43
12	5.7.40.2 WRD SOR Page 159	Labour for filling empty cement bags with loocal sand, stitching the bags and placing in Nylon crate of size (1 m x 1 m x 1 m) with lead of 150 M including supply of sutli etc. at site in dry portion all complete as per approved design, specification and direction of E/I				
		Unit :- Each N.C				
		Taking Out Put = 25 nos. filled E.C. Bags in each N/C				
		Cost of 25 nos of filled E.C.Bags (Vide item no. 5.7.40.1	Nos	25	37.43	935.83
		Rate each				935.83
13		Supply of Nylon Crate of size 1mx1mx1m			39.85	39.85
		Material				
		(a) Nylon Crate				39.85
		(b) Add Overhead charge @12%				0.00
		Total (a+b)				39.85
		Rate per nos.				39.85
14	11.2	Sand filling in Foundation Trenches as per Drawing & Technical Specification				
		Unit = Per Cum				
	a	Material				
		Sand(assuming 20 percent voids)	cum	1.20	143.32	171.98
	b	Labour				
		Mate	day	0.01	397.00	3.97
		Mazdoor(Unskilled)	day	0.3	373.00	111.90
						287.85
		Add overhead chrage @12%				0
						287.854
		total=				287.85
		Carraige cost for Local sand				292.22
		Rate per cum				580.07

Name of Road:- Situhar to Baysi
Block - Raghapur



Name of Road:- Situhar to Bayshi
Block:- Raighapur

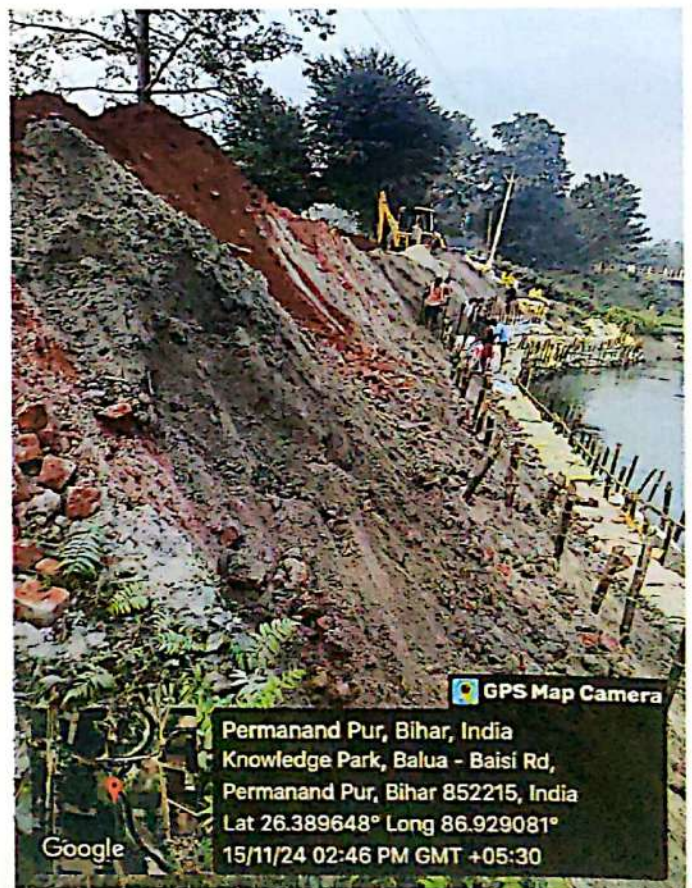
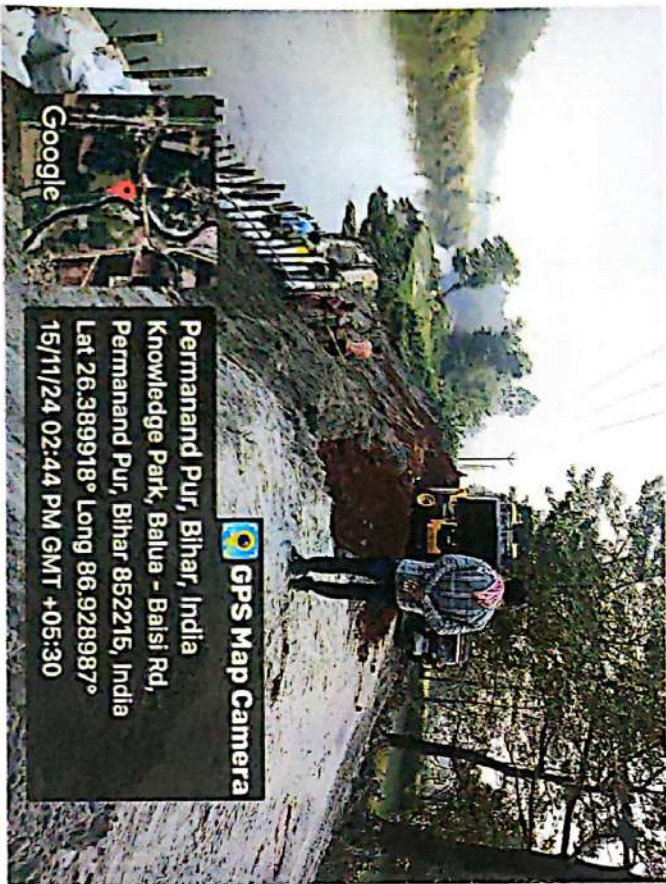


Name of Road:- Situhar to Bayshi
Block:- Raghapur



Name of Road: - Situhar to Baisi Border

Block: - Raghapur



Name of Road: — Situhar to Baixi Border

Block: — Roghopur

