

RURAL WORKS DEPARTMENT



GOVERNMENT OF BIHAR

LO26 YADAV TOLA WARD NO-13
NAME OF ROAD:- PAIKPAR TO BALUHAE TOLA GANDHI
NAGAR KHAJURI

DIVISION:- R.W.D, WORKS DIVISION, FORBESGANJ

CIRCLE:- R.W.D, WORK CIRCLE, KISHANGANJ

BLOCK:- BHARGAMA

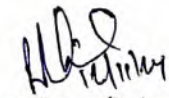
ESTIMATED COST

1310836.00

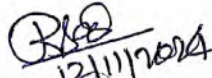
प्रतिवेदन

पथ का नाम :- L026 yadav to/9 ward No-13 pairpar to Balaha
कार्य का नाम :- PDR-2024 to/9 Gramhi Nagar Khatyuri
में बाढ़ से क्षतिग्रस्त भाग में यातायात चालू करने का कार्य।

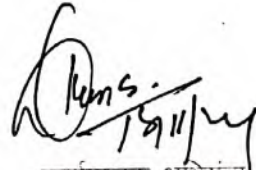
संलग्न प्राक्कलन 2024 को प्रखण्ड में आगी भीषण बाढ़ से क्षतिग्रस्त L026 yadav to/9 ward
No-13 pairpar to Balaha to/9 Gramhi Nagar Khatyuri
में बाढ़ क्षतिग्रस्त मरम्मति मद से यातायात चालू करने हेतु तैयार किया गया है जिसकी
प्राक्कलित लागत 1310836.26 है। उक्त पथ
का निर्माण mmmsy (S.O.) नान्तर्गत हुआ है एवं योजना अनुरक्षण अर्द्ध में 3%।
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, अरुणाचल प्रदेश।



सहायक अभियंता,
ग्रामीण कार्य विभाग,
कार्य अवर प्रमण्डल, अरुणाचल प्रदेश।



कार्यपालक अभियंता,
ग्रामीण कार्य विभाग,
कार्य प्रमण्डल, अरुणाचल प्रदेश।

Inspection Report for Flood Damage Work

Date:

1. Name of PIU's:- EE RWD WORK Division Farasganj

2. Name of Block:- Bharganag

3. Name of Road:- 1026 yastar to 10 Ward No-13 parkpar to Baluhar
to 19 Chanchi majan Khajuri

A. For Road

1. Damage Location/Chainage :-

2. Damage Length :- 50m, 100m, 130m 100m 1120m, 1200m -

3. Nature of Damage :- 5.00m 14.00m 5.20m, 6.00m, 8.10m 6.20m

4. Details of Restoration Works:-

(i.) Material being used in Restoration Works:- L-Sand, B/Boys, Ec Boys, Bamboo

(ii.) Equipments/Tools being used in Restoration works:- JCB, Tractor

(iii.) Procedure taken up in Restoration works:-

(iv.) Restored Length :-

B. For Bridge

1. Damage Location/Chainage:-

2. Damage Length :-

3. Nature of Damage :-

4. 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 :-

NA

Signature of JE/AE/EE

12/11/2024
AE

Signature

(Name of Inspector)

14/11/24

Abstract of Cost

ime of Work : Estimate for Repairing/Restoration/Making Motorable Roads
Damaged during flood in 2024 in ARARIA District

ne of Road:

**LO26 YADAV TOLA WARD NO-13 PAIKPAR TO BALUHAE TOLA GANDHI
NAGAR KHAJURI**

ock: BHARGAMA

District: ARARIA

vision : RWD, Works Division, FORBESGANJ

Circle: RWD, Work Circle, KISHANGANJ

No.	Description	Unit	Quantity (m3)	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	429.46	1287.25	552827.96
2	Supplying of EC bag, filling of local sand, stitching and placing in position as per the direction of Engineer-in-charge.				
		Per Bags	10829.90	55.882	605196.69
3	Supply and Carriage of brick bats upto 8 km breach and placing in breaches and lying of bats, all complete job.				
		Cum	49.34	2792.877	137811.72

4 Providing of drone service and drone surving as per I/E				
	PER TRIP	3.00	5000.000	15000.00
TOTAL AMOUNT =				1310836.38
SAY TOTAL AMOUNT =				1310836.38
				1310836.00

[Signature]
JE 12/11/24

D SUB DIVISION-BHARGAMA

[Signature]
12/11/2024
AE

RWD SUB DIV.
BHARGAMA

[Signature]
12/11/24
EE

RWD WORKS DIV. FORBESGANJ

*Technically Approved for Rs 13,10,836/- (Rupees thirteen
Lakh Ten thousand eight hundred and thirty six only)*

[Signature]
14/11/24
Superintending Engineer
Rural Works Department
Works Circle, Kishanganj
SE
KISHANGANJ
E.O.

Detailed Estimate

ne of Road:

**026 YADAV TOLA WARD NO-13 PAIKPAR TO BALUHAE TOLA GANDHI NAGAR
KHAJURI**

No.	Items of Works	Nos.	L (m)	B (m)	D (m) IN (Av.)	Quantity (m ³)
	Filling of local sand obtained from river bed, watering & ramming, all complete job as per specification & direction of Engineer-in-charge.					
	CH-50 M	1	5.00	3.20	$(4.90+5.50+4.70)/3$	80.53
	CH-100 M	1	14.80	2.80	$(4.70+5.50+4.60)/3$	204.44
	CH-130 M	1	5.20	2.10	$(4.90+5.50+4.70)/3$	54.96
	CH-1050 M	1	6.00	1.90	$(3.70+4.50+3.60)/3$	44.84
	CH-1120 M	1	8.10	0.90	2.70	19.68
	CH-1200 KM	1	6.20	1.00	$(3.90+4.50+3.70)/3$	25.01
					TOTAL=	429.46
					Total Qty =	429.46
2	Supplying of EC bag, filling of local sand, stitching and placing in position as per the direction of Engineer-in-charge.					
	CH-50 M	1	5.00	$(1.00+2.00)/2$	$(4.90+5.50+4.70)/3$	37.75
	CH-100 M	1	14.80	$(1.50+2.00)/2$	$(4.70+5.50+4.60)/3$	127.77
	CH-130 M	1	5.20	$(1.00+2.00)/2$	$(4.90+5.50+4.70)/3$	39.26
	CH-1050 M	1	6.00	$(1.00+2.00)/2$	$(3.70+4.50+3.60)/3$	35.40
	CH-1120 M	1	8.10	$(1.50+2.00)/2$	2.70	38.27
	CH-1200 KM	1	6.20	$(1.00+2.00)/2$	$(2.90+3.50+2.70)/3$	28.21
					TOTAL=	306.67
					Total No. of EC Bags =(306.67X35.315)	10829.90



			SAY NO OF BAGE=		10830
Supply and Carriage of brick bats upto 8 km breach and placing in breaches and lying of bats, all complete job.					
CH-50 M	1	5.00	1.30	0.60	3.90
CH-100 M	1	14.80	1.40	0.75	15.54
CH-130 M	1	5.20	1.50	1.00	7.80
CH-1050 M	1	6.00	1.00	0.60	3.60
CH-1120 M	1	8.10	1.10	1.20	10.69
CH-1200 KM	1	6.20	1.40	0.90	7.81
				Total Qty. =	49.34
Providing of drone service and drone surveying as per I/E					
	1	3.0			3.00
				TOTAL=	3.00

[Signature]
JE

RWD SUB DIV- BHARGAMA

[Signature]
12/11/2024
AE

RWD SUB DIV. BHARGAMA

[Signature]
12/11/24
EE

RWD WORKS DIV. FORBESGANJ

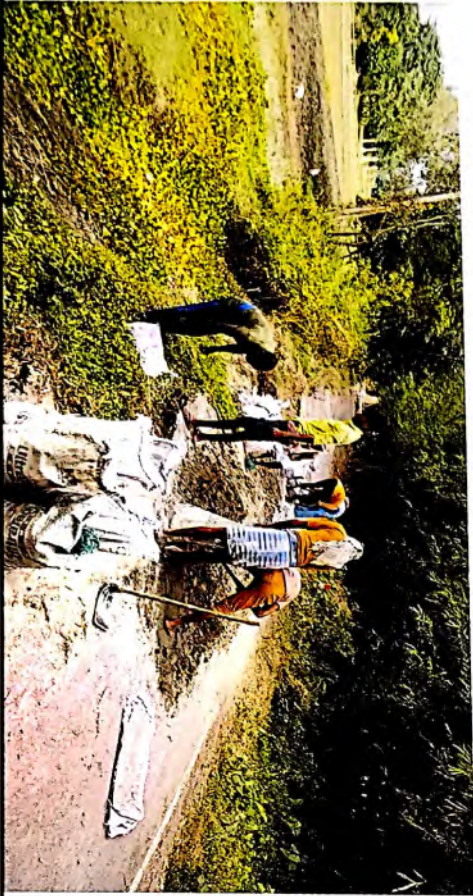


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6 YADAV TOLA WD NO-13 PAIKPAR SA GANDHI NAGAR

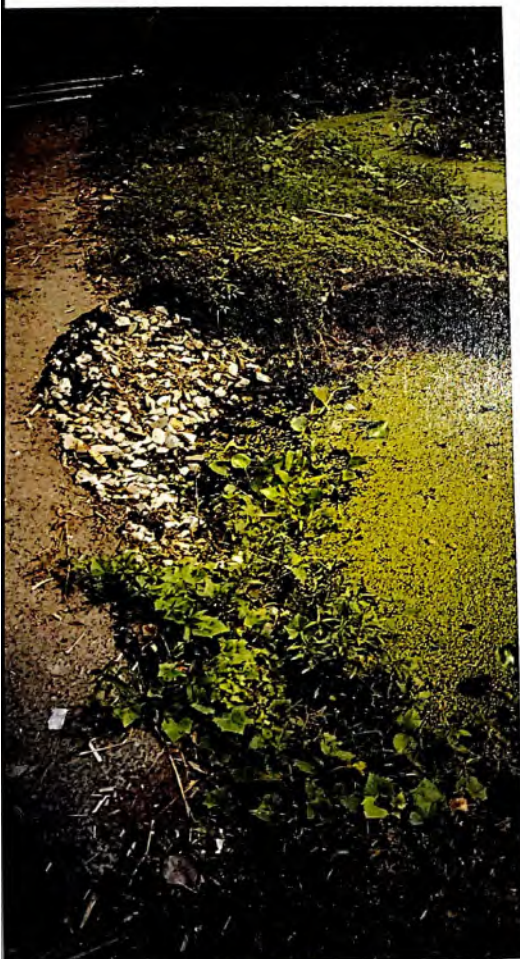


12/11/24

12/11/2024
A.E.

14/11/24

YADAV TOLA WD NO-13 PAIKPAR SA GANDHI NAGAR



12/11/2024
SC

12/11/2024
AB

FINAL RATE UNDER WORKS CIRCLE KISHANGANJ

Discription of Item	Unit	Final Rate (Excluding GST, Seigniorage & L.Cess)	Final Rate (Including GST, Seigniorage & L.Cess)
EARTH WORK	CUM	459.003	549.740
BRICK BAT	CUM	2209.576	2759.115
G.S.B	CUM	4328.501	5172.300
SAND BAG (Cement Bag)	Each	46.550	55.880
BAMBOO PILE	Per Mtr.	58.140	69.186
BAMBOO CHACHRI	Per Mtr.	302.258	359.690
BAMBOO RUNNER	Per Mtr.	30.210	35.950
HUME PIPE (1000 mm Div)	Per Mtr.	6206.598	7385.850
HUME PIPE (600 mm Div)	Per Mtr.	2492.260	2965.790
STEEL DRUM SHEET	Per Sqr.Mtr.	215.352	256.270
GEO BAG WITH SAND	EACH	967.490	1152.320
EACH N.C. BAG WITH SAND (Cement Bag)	Each E.C	967.490	1151.800
LOCAL SAND	CUM	721.110	1272.780

Executive Engineer
RWD, Works Division
Kishanganj-1

Executive Engineer
RWD, Works Division
Araria

Executive Engineer
RWD, Works Division
Kishanganj-2

Executive Engineer
RWD, Works Division
Forbesganj

Superintending Engineer
Rural Works Department
Works Circle Kishanganj

SUMMARY OF CARRIGE COST

Item	Unit	Amount (Rs.)
Earth Work	Cum	274.42
Brick Bats	Cum	521.97
Bamboo	Per Mtr.	3.00
G.S.B.	Cum	2960.13
Local Sand	Cum	345.14
HUME PIPE (1000 mm DIA)	Per Pipe	745.93
HUME PIPE PIR METER	Per Mtr.	298.37
HUME PIPE (600 mm DIA)	Per Pipe	310.88
HUME PIPE (600 mm DIA)	Per Mtr.	124.35
Local Sand	Cum	345.10

BASIC RATES
(A) Labour

Sl. No.	Description of Labour	Unit	Rate (Rs.)
L-01	Bhisti	day	373
L-02	Bitumen Sprayer (semi skilled)	day	393
L-03	Blacksmith, special	day	503
L-04	Blaster, 2nd class	day	619
L-05	Carpenter 1st Class	day	503
L-06	Chips spreader, semi-skilled	day	449
L-07	Chiseller (Skilled)	day	577
L-08	Dresser (Skilled)	day	472
L-09	Driller, 2nd class	day	449
L-10	Electrician, skilled	day	476
L-11	Fitter, skilled	day	511
L-12	Mason (1st class)	day	503
L-13	Mason (2nd Class)	day	449
L-14	Mate, Semi skilled	day	434
L-15	Mazdoor (Unskilled)	day	410
L-16	Mazdoor (Semi skilled)	day	388
L-17	Mazdoor (Skilled)	day	472
L-18	Painter (1st class)	day	476
L-19	Plumber, Special	day	476
L-20	Surveyor	day	454
L-21	White Washer	day	476
L-22	Head blacksmith	day	503
L-23	Welder 1st Class	day	577
	Carpenter Head	day	503
	Night Guard	day	415

(Basic Rates Taken From SOR, Seventeenth Edition, Road Construction Department, Govt. of Bihar effective from

01/07/2024

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Kishanganj-1

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RWD, Works Division
Farrukhganj

BASIC RATES (B) Material					
Sl. No.	Description	Unit	Basic Rate as per SOR	Add Royalty	Final Rate With Royalty
M-001	Bamboo (1st Class) 100 mm - 100 mm dia, 6.0 m - 8.0 m long (per mtr. - 23.52 Rs.)	No.	188.00		188.00
M-002	Bamboo (1st Class) 100 mm - 100 mm dia, 6.0 m - 8.0 m long (per mtr. - 23.52 Rs.)	No.	188.00		188.00
M-003	Bamboo (1st Class) 50 mm - 100 mm dia, 6.0 m - 8.0 m long (per mtr. - 14.71 Rs.)	No.	118.00		118.00
M-004	Bamboo (1st Class) 50 mm - 100 mm dia, 6.0 m - 8.0 m long (per mtr. - 14.71 Rs.)	No.	118.00		118.00
M-005	Bamboo (2nd Class) 75mm dia, 1.8 m - 6.0 m - 8.0 m long (per mtr. - 22.03 Rs.)	No.	176.00		176.00
M-006	Bamboo (2nd Class) 75mm dia, 6.0 m - 8.0 m long (per mtr. - 22.03 Rs.)	No.	176.00		176.00
M-007	Brick Bats	cum	1063.00	18.00	1081.00
M-008	Selected earth (Including @ Rs. 33.00 per cum & compensation @ Rs. 2.25 Per Cum	cum	2.25	33.00	35.25
M-009	Empty Cement Bag IS 11552:2000	Nos.	11.11		11.11
M-010	Steel Drum 300 mm dia 1.2 m high / empty bitumen drum	Nos.	170.13		170.13
M-011	Sand bags (Cost of sand and Empty cement bag)	Nos.	7.31	2.59	9.90
M-012	Soil (Brown)	kg	20.59		20.59
M-013	Granular material (Natural occurring, soil gravel mixture / quarry waste, kankar, laterite, dhandla	cum	84.03	83.00	167.03
M-014	Nails	kg	108.00		108.00
M-014	RCC Pipe NP3 (1000 mm dia)	m	5787.23		5787.23
M-015	RCC Pipe NP3 (600 mm dia)	m	2310.00		2310.00
M-015	Sand (Fine) at source	cum	69.75	75.00	144.75
M-016	Empty Steel Drum 300 mm dia 1.2 m height	Nos.	170.13		170.13
M-016	Water	kl	60.30		60.30
M-017	Geo Bags	[ach	124.00		124.00
M-018	G.S.B.	cum	69.75	75.00	144.75

(Basic Rates Taken From SOR, Seventeenth Edition, Road Construction Department, Govt. of Bihar
effective from 01/07/2024.

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Kishanganj-1

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Arraria

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Kishanganj-2

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RWD, Works Division
Farrakka

Superintending Engineer
RWD, Works Division
Kishanganj-1

**BASIC RATES
(C) USAGE RATES OF PLANT & MACHINERY**

No	sor Code	Machine	Description of	Activity	Output of Machine		Usage Rates in Rs.	
					Unit	Output	Unit	Rate
I-009	P&M-012	Crane upto 80 T		Lifting of materials			per hour	3,373.00
I-010	P&M-015	Dozer D 50 - A12 Dozer D 50 - A15		Dozing, cutting	cum/h	260.00	per hour	2,992.00
I-011	P&M-017	Front end-loader 1 cum bucket capacity (in 45 cum/hour)		Loading Aggregates	cum/h	120.00	per hour	1,719.00
I-017	P&M-026	Hydraulic Excavator of 1 cum bucket		Excavation	cum/h	100.00	per hour	2,272.00
I-031	P&M-044	Three wheel 80-100 kN Static Roller		Compaction/Rolling				1,444.00
I-032			Earth - Embankment or sub-grade		cum/h	80-70		1,391.00
M-033			Sub-base G-I		cum/h	10.00		1,523.00
M-034			Sub-base G-II G-III		cum/h	8.00		1,593.00
M-035			WBM		cum/h	16.00		1,593.00
M-036			BUSG		cum/h	10.00	per hour	1,523.00
M-037			BM 50 75 mm		cum/h	12.00		1,593.00
M-038			Premix 20 mm		sqm/h	250.00		1,593.00
M-039			Scal Coat		sqm/h	500.00		1,593.00
M-040			Surface Dressing 1st Coat		sqm/h	400.00		1,593.00
M-041			Surface Dressing 2nd Coat		sqm/h	500.00		1,593.00
PM-042	P&M-048	Tipper 5.5 cum/10 t		Carriage	cum/trip	5.50	per hour	1,126.00
PM-043	P&M-053	Tractor with Disc Harrows		Pulverisation of soil	cum/h	80.00	per hour	693.00
PM-044	P&M-055	Tractor with ripper (a, 60 cum per hour)		Ripping Pavements, uprooting trees	cum/h	60.00	per hour	697.00
PM-045	P&M-053	Tractor with trolley with Grading equipment		Transportation of materials	t/trip	3 to 5	per hour	676.00
PM-046	P&M-054	Tractor with Rotavator		Scarifier	cum/h	25.00	per hour	693.00
PM-047	P&M-057	Truck 10 t capacity		Carriage	cum/trip	5.50	per hour	1,126.00
PM-048	P&M-059	Vibratory roller 80-100 kN		Compaction of soil WBM	cum/h	100.00	per hour	2,083.00
PM-049				Compaction of BM	cum/h	60.00		2,083.00
PM-050	P&M-060	Water tanker 6 kl capacity (Truck Mounted)		Carriage of water	litre/h	12000.00	per hour	1,126.00
PM-063	P&M-060	generator 3KVA		stitching	per hour		per hour	1,126.00
PM-064	P&M-060	stitching machine		stitching	day		day	1,126.00

(Basic Rates Taken From SOR, Seventeenth Edition, Road Construction Department, Govt. of Bihar effective from 01/07/2024.

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Forbesganj

Superintending Engineer
Rural Works Department
Works Circle Kishanganj

Comparison of carriage cost of Material via Road from different sources																	
Sl No	Item	Unit	Source	Pucka / Surface						Katcha					Load ing & Road	Carriage by Road	Total *
				Carriage Cost & Lead in Km													
1	By Tractor																
A	Earth Work Via Road	Cum	Local	3.60					3.60								
				2.04	x 20.04	x 0 Km	= Rs 0.00	2.04	x 31.30	x 1 Km	= Rs 55.24	219.18	274.42	274.420			
B	Brick Bat Via Road	Cum	Local	3.60					3.60								
				2.04	x 20.04	x 7 Km	= Rs 247.55	2.04	x 31.30	x 1 Km	= Rs 55.24	219.18	521.97	521.970			
B	Bamboo Via Road	pet mtr.	Local	3.60	x 20.04	x 2 Km	= Rs 1.15	3.60	x 31.30	x 1 Km	= Rs 0.89	0.96	3.00	3.000			
				126.00				126.00									
D	Local Sand Via Road	Cum	Local	3.60					3.60								
				2.04	x 20.04	x 2 Km	= Rs 70.73	2.04	x 31.30	x 1 Km	= Rs 55.24	219.18	345.14	345.140			
2	By Tipper																
A	GSB Via Road	Cum	Siliguri	8.00	x 9.83	x 177 Km	= Rs 2789.43	8.00	x 23.81	x 0 Km	= Rs 0.00	170.70	2960.13	2960.130			
				4.99				4.99									
3	By Truck																
A	Hume Pipe (1000 mm) Via Rod	Mtr.	purnea	8.00				8.00									
				10.00	x 7.27	x 53 Km	= Rs 308.25	10.00	x 17.60	x 0 Km	= Rs 0.00	437.68	745.93	745.930			
A1	Rate Per Mtr. Pipe	Mtr.	purnea						Rate per mtr				298.37	298.370			
				8.00													
B	Hume Pipe (600 mm) Via Road	Mtr.	purnea	25.00	x 7.27	x 53 Km	= Rs 123.30	25.00	x 17.60	x 0 Km	= Rs 0.00	187.58	310.88	310.880			
B1	Rate Per Mtr. Pipe	Mtr.	purnea						Rate per mtr				124.35	124.350			

Cost of Haulage Excluding Loading & Unloading as per SO* Subjected to Verification of Lead

Executive Engineer
RWD, Works Division
Kishanganj-1

Executive Engineer
RWD, Works Division
Kishanganj-2

Executive Engineer
RWD, Works Division
Araria

Executive Engineer
RWD, Works Division
Forbesganj

SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	QTY	Rate	Amount in Rs
Carriage Of Material (By Tractor)						
4.4		Loading and unloading of stone Boulder /stone aggregates sand/ kankar/ moorum				
		Placing tractor at loading point loading with front end loader dumpoing ,turning for return trip excludng time for haulage and return trip				
		Unit = cum				
		Taking output = 2.25 cum				
		Time required for				
		i) positioning of tractor at loading point	min	1 min		
		ii) Loading by front end loader 1 cum bucket capacity @ 25 cum	min	5 min		
		Total		6 min		
	a)	Labour				
		Mate	day	0.030	434.00	13.02
		Mazdoor (Unskilled)	day	0.720	410.00	295.20
	b)	Machinery				
		Tractor 3.60 Tonnes Capacity	hour	0.100	676.00	67.60
		Front end loader 1 cum bucket capacity @ 25 Cum/hour	hour	0.083	1,419.00	117.78
		Cost for 2.25 cum = a+b+c				493.60
		Rate per cum = (a+b+c)/2.25	cum			219.378
		Total per cum	cum			219.378
1.10		Haulage excluding Loading & Unloading				
		Haulage of materials by truck excluding cost of Loading, Unloading and stacking				
		Unit = 7km				
		Taking output 3.6t load and lead 10km = 36t/km				
		Case- I : Surfaced Road				
		Speed with load : 15km per hour				
		Speed while returning empty : 25km per hour				
	a)	Machinery				
		Tractor 3.6 tonnes Capacity				
		Haulage with load	hour	0.667	676.00	450.89
		Empty return trip	hour	0.400	676.00	270.40
		Cost for 36t/km = a+b+c				721.29
		Cost for 1 t.km = a+b/36				20.040
		Total per t.km				20.040
		Case - II 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				
		Tractor 3.6 tonnes Capacity				
		Haulage with load	hour	1.00	676.00	676.00
		Empty return trip	hour	0.667	676.00	450.89
		Cost for 36t/km = a+b+c				1126.89
		Cost for 1 t.km = a+b/36				31.300
		Total per t.km				31.300
Carriage Of Material (By Tipper)						
1.1		Loading and Unloading Lime, Aggregate, Stone Boulder, Brick Aggregate, Kankar, Building Rubbish, Crushed Slag, Stone for Masonry Work by Manual Means				
	(I)	Loading of lime, Aggregates, Stone boulder, Brick aggregate, Kankar, Building Rubbish, Crushed Slag Stone for masonry work by manual means including a lead upto 30m				
		Unit = cum				
		Taking output = 5.5 cum				
		Time required for				
	(i)	Position of tipper at loading point		1Min		
	(ii)	loading by front end loader 1 cum bucket capacity @25		13Min		
	(iii)	maneuvering, reversing, dumping and turning for return		2Min		
	(iv)	Waiting time unforeseen contingencies etc.		4Min		
		Total		20Min		
	b)	Machinery				
		Tipper 5.5 Tonnes Capacity	hour	0.330	1,426.00	470.58
		Front end loader 1 cum bucket capacity @ 25 Cum/hour	hour	0.330	1,419.00	468.27
		Cost for 5.5 cum = a+b+c				938.85

		Rate per cum = (a+b+c)/5.5	cum		170.70
		Total per cum			170.70
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			
		Tipper			
		Haulage with load	hour	0.40	1426.00
		Empty return trip	hour	0.29	1426.00
		Cost for 100t km = a+b+c			983.94
		Cost for 1 t km = a+b/100			9.830
		Total per t per km			9.830
		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			
		Tipper			
		Haulage with load	hour	1.00	1426.00
		Empty return trip	hour	0.67	1426.00
		Cost for 100t km = a+b			955.42
		Cost for 1 t km = a+b+c/100			2381.42
		Total per t per km			23.81
3		Carriage Of Material (By Truck)			23.810
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			
		Haulage with load	hour	0.40	1054.00
		Empty return trip	hour	0.29	1054.00
		Cost for 100t km = a+b+c			305.66
		Cost for 1 t km = a+b/100			727.26
		Total per t per km			7.270
		Case - III Kutcha Track and Track in River Bed / Nallah Bed and Choe Bed			7.270
		Speed with load : 10km per hour			
		Speed while returning empty : 15km per hour			
	a)	Machinery			
		Truck			
		Haulage with load	hour	1.00	1054.00
		Empty return trip	hour	0.67	1054.00
		Cost for 100t km = a+b			706.18
		Cost for 1 t km = a+b+c/100			1760.18
		Total per t per km			17.60
1.9		Loading and Unloading of Hume Pipes			17.600
	(i)	Loading of RCC Hume pipes by mechanical means including a lead upto 30 m			
	A.	1000 / 1200 mm dia Hume pipe			
		Unit = per pipe			
		Taking output = 9 pipes			
	a)	Labour			
		Mate			
		Mazdoor (Unskilled)	day	0.02	434.00
	b)	Machinery	day	0.50	410.00
		Truck			205.00
		Crane	hour	0.33	1054.00
		Cost for 9 pipes = a+b+c+d	hour	0.33	5573.00
		Total per 9 pipes			1839.09
		Total per 100 pipes			2400.59

		Rate per cum = (a+b+c+d)/100	cum		58.265
		Total per cum	cum		58.265
3.5	301.5	Exaavation In soil with Dozer with lead upto 100 m			
(ii)	(ii)	Excavation for roadway in soil by mechanical means including cutting and pushing the earth to site of embankment upto a distance of 100 m, including trimming bottom and side slopes in accordance with requirements of lines, grades and cross-sections.			
		Unit = cum			
		Taking output = 100 cum			
	a)	Labour			
		Mate	day	0.00	434.00
		Mazdoor (Unskilled)	day	2.00	410.00
	b)	Machinery			
		Dozer D-50 for spreading @200 cum per hour	hour	3.60	4326.00
		Cost for 100 cum = a+b+c+d+e			16427.20
		Rate per cum = (a+b+c+d)/180	cum		91.262
		Total per cum	cum		91.260
3.3	301.5	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 Table 300.1 and 300.2 with a lead of 1000 m as per Technical			
		Unit = cum			
		Rate Item no. 3.3 Clause 301.5			58.265
		Rate Item no. 3.5(ii) Clause 301.5			91.260
		Royalty Compensation for earth taken from private land			35.250
		Carriage of Earth by Tractor Lead 1 K.M.			274.420
		Total Cost of 1 cum =			459.195
		Labour Cess @ 1%			4.590
		G.S.T. @ 18%			82.655
		Add Seigniorage Fee @ 10 % of Materials	cum	1.00	35.25
		Total Cost of 1 cum 1% Cess & 18% GST			549.970
4.5		Providing and Laying of Brick Bats			
		Placing tractor at loading point loading with front end loader dumpoing, turning for return trip excludng time for haulage and return trip			
		Unit = cum			
		Taking output = 2.83 cum			
	a)	Labour			
		Mazdoor (Unskilled)	day	2.170	410.00
	b)	Materials			
		Brick Bats	cum	3.396	1,081.00
		Total (a+b)=			4560.78
		Total (a+b+c) =			4560.78
	d)	Carriage			
		Brick Bats	cum	3.396	521.97
		TOTAL			6333.39
		Rate per cum = (a+b+c+d)/2.83	cum		2237.947
		Total per cum	cum		2237.947
		Labour Cess @ 1%			22.379
		G.S.T. @ 18%			402.830
		Add Seigniorage Fee @ 10 % of Materials	cum	1.20	1,081.00
		Total Cost of 1 cum 1% Cess & 18% GST			22792.877
4.1	401	PAVEMENT CRUST LAYERS			
		For Grading II 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.			
	(ii)	For Grading II Material			
		Unit = cum			
		Taking output = 300 cum			
	a)	Labour			
		Mate	day	0.48	434.00
		Mazdoor (Skilled)	day	2.00	472.00
		Mazdoor (Unskilled)	day	10.00	410.00

		Machinery				
		Tractor mounted grader arrangement				5252.32
		Three wheel 80-100 kN static roller @ 10 cum per hour	hour	12.00	676.00	8112.00
		Tractor with Rotavator 25 cum per hour	hour	30.00	1593.00	47790.00
		Water tanker 6 kl capacity	hour	12.00	693.00	8316.00
			hour	5.00	752.00	3760.00
	c)	Material				67978.00
		Well graded granular sub-base material as per Table 400.1				
		GSB				
		Cost of 300 cum without Carriage = (a+b+c+d+e)	cum	1.28	167.03	213.80
		A) Basic Cost per cum = (a+b+c+d+e)/300				73444.12
		CARRIAGE	cum			244.814
		G.S.B.				
		Carriage cost of 300 cum	Cum	414.00	2960.13	1225493.82
		B) Carriage cost per cum				1225493.82
		Rate per cum = (A+B)				4084.98
		Total per cum	CUM			4329.794
		Labour Cess @ 1%	CUM			4329.794
		G.S.T. @ 18%				43.298
		Add Selgniorage Fee @ 10 % of Materials				779.363
			cum	1.28	167.03	21.38
		Total Cost of 1 cum with 1% Cess & 18% GST =				5173.835
9.3	1100	Providing 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 Clause 1106.				
	B.	1000 MM DIA (Single Row)				
	a)	Material				
		RCC NP3 pipe including collar	m	7.50	5787.23	43404.23
	b)	Labour				
		Mate	day	0.09	434.00	39.06
		Mason (1st class)	day	0.25	503.00	125.75
		Mazdoor (Unskilled)	day	2.00	410.00	820.00
		Cost for 7.5m = (a+b+c)				44389.04
		A) Basic Cost per m = (a+b)/7.5	m			5918.54
		Rate per m of Pipe				5918.54
	(d)	CARRIAGE COST				
		NP3 Pipe	m	7.5	298.37	2237.78
		Carriage cost of 7.5 m				2237.78
		Carriage cost per m	m			298.37
		Rate per m with Carriage	m			6,216.909
		Total per m	m			6,216.909
		Labour Cess @ 1%				62.169
		G.S.T. @ 18%				1,119.044
		Total Cost of 1 mtr with 1% Cess & 18% GST =				17,398.121
	C.	600 MM DIA (Single Row)				
	a)	Material				
		RCC NP3 pipe including collar	m	7.50	2310.00	17325.00
	b)	Labour				
		Mate	day	0.04	434.00	17.36
		Mason (1st class)	day	0.12	503.00	60.36
		Mazdoor (Unskilled)	day	0.96	410.00	393.60
		Cost of 7.5m = (a+b+c+d)				17796.32
		A) Basic Cost per m = (a+b)/7.5	m			2372.84
		Rate per m of Pipe				2372.84
		CARRIAGE COST				
		NP3 Pipe	m	7.5	124.35	932.63
		Carriage cost of 7.5 m				932.63
		B) Carriage cost per m	m			124.35
		Rate per m with Carriage	m			2,497.193
		Total per m	m			2,497.193
		Labour Cess @ 1%				24.972
		G.S.T. @ 18%				449.495
		Total Cost of 1 mtr with 1% Cess & 18% GST =				2,972.660
3	5.7.40.1	Labour for filling empty cement bags with local sand, silting the bags and placing including supply of sutti etc. all complete as per approved design, specification and direction E/L.				

		Unit = Per % Nos.			
		(A) For Filling & Stitching & Stacking			
		Labour			
		Skilled Labour for filling sand into bags and sewing	No.	2.00	472.00
		sutali	kg	0.50	20.59
					10.30
		(B) Labour Rate For Carrying & Placing filed E.C. Bags.			
		Labour			
		Skilled Labour for Carrying filed bags and placing to work site	No.	3.00	472.00
					1416.00
		TOTAL =			2370.30
		Per % Nos. (B) =		Say.	2370.30
		Rate per bag (A+B) = /100			23.70
		(C) Cost of empty cement bag & cost of sand	each		11.11
		(D) Carriage cost			
		Tractor with trolly	cum	0.034	345.14
					11.73
		(G) Total = (A+B+C+D) =			46.55
		Labour Cess @ 1%			0.465
		G.S.T. @ 18%			8.379
		Add Seigniorage Fee @ 10 % of Materials	cum	0.034	144.75
					0.49
		Total Cost of E.C. Bag 1% Cess & 18% GST =			55.882
4	5.7.9	Supply Labour for fitting and fixing 62 mm to 75 mm dia bamboo runners in position at every verticle pile with 150 mm long nails or 38 swg G. I. wire including cost of G.I. or nails complete job as per specification and direction			
		Unit = Per mt.			
		Taking Out Put = 30.50 m			
	(i)	Materials			
		Bamboo	m	30.50	20.21
					616.41
		Nails	kg	0.50	108.00
					54.00
	(ii)	Labour			
		Carpenter Gr -Ii	No.	0.125	503.00
					62.88
		Unskilled Labour	No.	0.25	410.00
					102.50
		Rate for 30.5 m			835.79
		TOTAL =			835.79
		Rate per mt			27.40
	(iii)	Carriage cost			
		bamboo	mt	1	3.00
					3
		Total Cost with Carriage			30.40
		Labour Cess @ 1%			0.304
		G.S.T. @ 18%			5.473
		Total Cost of 1 mt 1% Cess & 18% GST =			36.177
5	5.7.7	Labour for cutting 62 mm to 75 mm dia bamboo piles in size and making shoes and driving etc. complete bob as per specification and direction E/I.			
		Unit = Per mt.			
		Taking Out Put = 30.50 m			
		Assuming			
		20 no pile sunk 1.525 m deeps			
		Total depth sunk 30.50 m			
	(i)	Materials			
		Bamboo	m	30.50	20.21
					616.41
	(i)	Labour			
		Carpenter Gr -II	No.	0.25	503.00
					125.75
		Unskilled Labour for piling	No.	2.50	410.00
					1025.0
		Rate for 30.5 m			1767.16
		Total			1767.16
		Rate for 1 m			57.94
		Carriage Cost of Bamboo	per mtr.		3.00
					60.94
		Total Cost with Carriage			0.609
		Labour Cess @ 1%			10.969
		G.S.T. @ 18%			
		Total Cost of 1 mt 1% Cess & 18% GST =			72.518

	Labour for fitting and and fixing Steel Drum 300 mm dia 1.2 m high as per specification and direction			
	(Assuming Per Mtr. = $3.14 \times 0.30 = 0.942$ mtr.)			
	Area of Assuming in one Drum = $0.942 \times 1.20 = 1.130$ Sqm			
	One Sqm sheet Cost = $127.80 / 1.130 = 113.12$ Cost			
	Unit = per sqm			
	Taking Out = 100 sqm			
a	Labour			
	Hammer man	No.	4.00	503.00
	Mazdoor (Unskilled)	No.	4.00	410.00
	Carpenter 1st Class	No.	4.00	503.00
b	Materials			
	Nails	kg	5.00	170.13
	Steel Drum sheet	Nos.	88.5	170.13
				21571.160
				215.712
	Rate Per m = $(a+b+c)/100$			
	Labour Cess @ 1%			
	G.S.T. @ 18%			
	Total Cost of 1 mtr. 1% Cess & 18% GST			
5.7.8 WRD	Labour for fitting and and fixing split bamboo woven chachari in position with 20 swg G.I. wire of 75 mm to 100 mm long nails alternatively including cost of G.I. wire or nails complete job as per specification and direction of E/I.			
	(Assuming strip of $3.05 \times 3.05 = 9.30$ sqm			
	Unit = per sqm			
	Taking Out = 9.30 sqm			
a	Labour			
	Carpenter Gr -II	No.	1.00	531.00
	Mazdoor (Unskilled) for pilling	No.	1.00	410.00
b	Materials			
	Bamboo	Mtr.	10.00	188.00
	Nails	kg	0.25	108.00
				2848.000
				306.237
	Rate Per m = $(a+b+c)/9.30$			
	Labour Cess @ 1%			
	G.S.T. @ 18%			
	Total Cost of 1 mtr. 1% Cess & 18% GST			
5.7.50	Providing laying & filling Geo bags of size 1m X 0.700m (Type A) 300 GSM nonwoven) weight 420 gm volume of filled bag 0.070 cum Weight of filled Geo bag 126 kg with local sand including stitching in four lines by approved Nylon thread with Staching machine and generator, stocking and placing after loading, Unloading and carriage with the help of Trolley within 150 mtr. lead and all complete as per specification and direction of E/I.			
	Unit = Each Bag			
	Taking Out = 40 Nso.			
	Labour			
	Unskilled Loading For filling stacking	nos	2	410.00
	Skilled labour for stacking	nos	0.33	472.00
	Unskild labour for carring and placing	nos	4.00	410.00
	Mate	nos	0.25	434.00
	Stiching Machine	day	0.33	50.00
	Tractor with trolley	day	1.00	676.00
	Generator 3KVA	hrs	20.67	74.00
	Total			4946.34
	Rate per bag (total/40) (A)			
(ii)	charge for placing & dumping	nos	16	410.00
	unskilled labour for loading unloading & dumping	nos	1	434.00
	Mate	each	4	676.00
	Tractor with trolley			9,443.000
	Total			36.887
	Rate per bag (Total/256) (B)			
	Matroials	each	1	124.00
	cost of Geo Bag			284.545
	Total cost (a+b+c)			

	Rate per bag				284.545
	Labour Cess @ 1%				2.845
	G.S.T. @ 18%				51.218
	Add Seigniorage Fee @ 10 % of Materials	cum	0.070	144.75	1.01
	Total Cost of 1 E.C. 1% Cess & 18% GST				339.61
7.40.3	Labour for filling empty cement bags with local sand, stitching the bags and pitching in Nylon crate of size (1m x 1m x 1m) with a lead of 150 m including supply of suti etc. and placing the filed crates in water portion within a lead 30 m all complete as per approved design, specification and direction of E/I.				
	Unit = Each N.C.				
(i)	(i) Labour Cost for filling bags in one Nylon crate in dry portion	No.	1	472.00	411.00
(ii)	(i) Labour Cost for filling bags in one Nylon crate in dry portion	No.	1	472.00	611.00
	(II) Placing of filed N/C with 30 m lead in water portion				
	Labour				
	Mate	No.	0.37	434.00	160.58
	Labour(Skilled)	No.	1.00	472.00	472.00
	Labour(Unskilled)	No.	1.00	410.00	410.00
					2064.58
	Hence, Total Labour for 100 Cft.				2064.58
	Taking one E.C. Bags to contain 1.20 Cft. Of sand				
(ii)	Hence, labour rate for placing one filed N.C.		356.49		356.49
	Hence rate for mu;pm crate om water portion (I+II)			Say.	967.49
	Labour Cess @ 1%				9.675
	G.S.T. @ 18%				174.148
	Add Seigniorage Fee @ 10 % of Materials	cum	0.034	144.75	0.49
	Total Cost of 1 E.C. 1% Cess & 18% GST				1151.803
	Local sand filling in foundation trenches as per drawing and technical specification				
	Local sand Filling in foundation trenches as per drawing and technical specification Clause 305.3.9				
I.	Sand filling				
	Unit = cum				
a)	Labour				
	Mate	day	0.01	434.00	4.34
	Mazdoor (Unskilled)	day	0.30	410.00	123.00
b)	Material				
	Sand (assuming 20 per cent voids)	cum	1.20	144.75	173.70
	Overheads @ 6 % on (a)				18.06
					319.10
	CARRIAGE COST				
	sand	Cum	1.2	345.14	414.17
	Rate per cum = a+b+c				733.27
	Total Cost including 1 % LABOUR CESS				7.33
	G.S.T. @ 18%				131.99
	Add Seigniorage Fee @ 10 % of Materials				0.49
	Total Cost of 1 E.C. 1% Cess & 18% GST				1287.25

Executive Engineer
WD, Works Division
Kishanganj-1

Executive Engineer
RWD, Works Division
Kishanganj-2

Executive Engineer
RWD, Works Division
Forbesganj

Superintending Engineer
Rural Works Denartment
Works Circle Kishanganj

FINAL RATE UNDER WORKS CIRCLE KISHANGANJ

S.No	Discription of Item	Unit	Final Rate (Excluding GST, Selgnlorage & L.Cess)	Final Rate (Including GST, Selgnlorage & L.Cess)
1	EARTH WORK	CUM	459.003	549.740
2	BRICK BAT	CUM	2209.576	2759.115
3	G.S.B	CUM	4328.501	5172.300
4	SAND BAG (Cement Bag)	Each	46.550	55.880
5	BAMBOO PILE	Per Mtr.	58.140	69.186
6	BAMBOO CHACHRI	Per Mtr.	302.258	359.690
7	BAMBOO RUNNER	Per Mtr.	30.210	35.950
8	HUME PIPE (1000 mm Div)	Per Mtr.	6206.598	7385.850
9	HUME PIPE (600 mm Div)	Per Mtr.	2492.260	2965.790
10	STEEL DRUM SHEET	Per Sqr.Mtr.	215.352	256.270
11	GEO BAG WITH SAND	EACH	967.490	1152.320
2	EACH N.C. BAG WITH SAND (Cement Bag)	Each E.C	967.490	1151.800
3	LOCAL SAND	CUM	721.110	1272.780

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RWD, Works Division
Kishanganj-1

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RWD, Works Division
Araria

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RWD, Works Division
Kishanganj-2

Executive Engineer
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Forbesganj

Superintending Engineer
Rural Works Department
Works Circle Kishanganj

SUMMARY OF CARRIGE COST

No.	Item	Unit	Amount (Rs.)
	Earth Work	Cum	274.42
	Brick Bats	Cum	521.97
	Bamboo	Per Mtr.	3.00
	G.S.B.	Cum	2960.13
	Local Sand	Cum	345.14
	HUME PIPE (1000 mm DIA)	Per Pipe	745.93
	HUME PIPE PIR METER	Per Mtr.	298.37
	HUME PIPE (600 mm DIA)	Per Pipe	310.88
	HUME PIPE (600 mm DIA)	Per Mtr.	124.35
	Local Sand	Cum	345.10

BASIC RATES
(A) Labour

Sl. No.	Description of Labour	Unit	Rate (Rs.)
L-01	Bhisti	day	373
L-02	Bitumen Sprayer (semi skilled)	day	393
L-03	Blacksmith special	day	503
L-04	Blaster, 2nd class	day	619
L-05	Carpenter 1st Class	day	503
L-06	Chips spreader, semi-skilled	day	449
L-07	Chiseller (Skilled)	day	577
L-08	Dresser (Skilled)	day	472
L-09	Driller, 2nd class	day	449
L-10	Electrician, skilled	day	476
L-11	Filter, skilled	day	511
L-12	Mason (1st class)	day	503
L-13	Mason (2nd Class)	day	449
L-14	Male, Semi skilled	day	434
L-15	Mazdoor (Unskilled)	day	410
L-16	Mazdoor (Semi skilled)	day	388
L-17	Painter (1st class)	day	472
L-18	Plumber, Special	day	476
L-19	Surveyor	day	476
L-20	White Washer	day	454
L-21	Head blacksmith	day	476
L-22	Welder 1st Class	day	503
L-23	Carpenter Head	day	577
	Night Guard	day	503
			415

(Basic Rates Taken From SOR, Seventeenth Edition, Road Construction Department, Govt. of Bihar effective from 01/07/2024)

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RWD, Works Division
Kishanganj-1

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Arraria

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RWD, Works Division
Kishanganj-2

Executive Engineer
RWD, Works Division

BASIC RATES (B) Material					
Sl. No.	Description	Unit	Basic Rate as per SOR	Add Royalty	Final Rate With Royalty
M-001	Bamboo (1st Class) 100 mm - 100 mm dia, 6.0 m - 8.0 m long (per mtr - 23.52 Rs.)	No.	188.00		188.00
M-002	Bamboo (1st Class) 100 mm - 100 mm dia, 6.0 m - 8.0 m long (per mtr - 23.52 Rs.)	No.	188.00		188.00
M-003	Bamboo (1st Class) 50 mm - 100 mm dia, 6.0 m - 8.0 m long (per mtr - 14.71 Rs.)	No.	118.00		118.00
M-004	Bamboo (1st Class) 50 mm - 100 mm dia, 6.0 m - 8.0 m long (per mtr - 14.71 Rs.)	No.	118.00		118.00
M-005	Bamboo (2nd Class) 75mm dia, 1.8 m - 6.0 m - 8.0 m long (per mtr - 22.03 Rs.)	No.	176.00		176.00
M-006	Bamboo (2nd Class) 75mm dia, 6.0 m - 8.0 m long (per mtr - 22.03 Rs.)	No.	176.00		176.00
M-007	Brick Bats	cum	1063.00	18.00	1081.00
M-008	Selected earth (Including @ Rs. 33.00 per cum & compensation @ Rs. 2.25 Per Cum	cum	2.25	33.00	35.25
M-009	Empty Cement Bag IS 11652:2000	Nos.	11.11		11.11
M-010	Steel Drum 300 mm dia 1.2 m high / empty bitumen drum	Nos.	170.13		170.13
M-011	Sand bags (Cost of sand and Empty cement bag)	Nos.	7.31	2.59	9.90
M-012	Sutli (Brown)	kg	20.59		20.59
M-013	Granular material (Natural occurring, soil gravel mixture / quarry waste, kamkar, laterite, dhandia	cum	84.03	83.00	167.03
M-014	Nails	kg	108.00		108.00
M-014	RCC Pipe NP3 (1000 mm dia)	m	5787.23		5787.23
M-015	RCC Pipe NP3 (600 mm dia)	m	2310.00		2310.00
M-015	Sand (Fine) at source	cum	69.75	75.00	144.75
M-016	Empty Steel Drum 300 mm dia 1.2 m height	Nos.	170.13		170.13
M-016	Water	l/ach	60.30		60.30
M-017	Geo Bags	l/ach	124.00		124.00
M-018	G.S.B.	cum	69.75	75.00	144.75

/Basic Rates Taken From SOR, Seventeenth Edition, Road Construction Department, Govt. of Bihar

(Basic Rates Taken From SOR, Seventeenth Edition, Road Construction Department, Govt. of Bihar
effective from 01/07/2024.

[Signature]
Executive Engineer
RWD, Works Division
Kishanganj-1

[Signature]
Executive Engineer
RWD, Works Division
Arris
[Signature]
Executive Engineer
RWD, Works Division
Kishanganj-2

[Signature]
Executive Engineer
RWD, Works Division
Bodhgaya

[Signature]
Superintending Engineer
Rural Works Department

**BASIC RATES
(C) USAGE RATES OF PLANT & MACHINERY**

Sr. No.	Sor Code	Machine	Description of Activity	Output of Machine		Usage Rates in Rs.	
				Unit	Output	Unit	Rate
PM-009	P&M-012	Crane upto 80 T	Lifting of materials	cum/h	200.00	per hour	3573.00
PM-010	P&M-015	Dozer D 80 - A12 Dozer D 50 - A15	Dozing cutting	cum/h	120.00	per hour	3927.00
PM-011	P&M-017	Front end-loader 1 cum bucket capacity @ 45 cum/hour	Loading Aggregates	cum/h	45.00	per hour	8626.00
PM-017	P&M-026	Hydraulic Excavator of 1.5 cum bucket	Excavation	cum/h	100.00	per hour	1272.00
PM-031	P&M-044	Three wheel 80-100 kN Static Roller	Compaction/ Rolling	cum/h	80-70	per hour	1593.00
PM-032			Earth - Embankment or sub-grade	cum/h	10.00	per hour	1593.00
PM-033			Sub-base G-I	cum/h	8.00	per hour	1593.00
PM-034			Sub-base G-II G-III	cum/h	16.00	per hour	1593.00
PM-035			WALI	cum/h	10.00	per hour	1593.00
PM-036			WALI	cum/h	12.00	per hour	1593.00
PM-037			Premix 20 mm	sqm/h	500.00	per hour	1593.00
PM-038			Seal Coat	sqm/h	400.00	per hour	1593.00
PM-039			Surface Dressing 1st Coat	sqm/h	500.00	per hour	1593.00
PM-040			Surface Dressing 2nd Coat	sqm/h	500.00	per hour	1593.00
PM-041	P&M-048	Tipper 5.5 cum 10 t	Carriage	cum/trip	5.50	per hour	603.00
PM-042	P&M-053	Tractor with Disc Harrows	Pulverisation of soil	cum/h	80.00	per hour	603.00
PM-043	P&M-055	Tractor with ripper @ 60 cum per hour	Ripping Pavement, uprooting trees	cum/h	60.00	per hour	603.00
PM-044	P&M-053	Tractor with trolley with Grading equipment	Transportation of materials	trip	3 to 5	per hour	603.00
PM-045	P&M-054	Tractor with Rotavator	Scarifier	cum/h	25.00	per hour	603.00
PM-046	P&M-057	Truck 10 t capacity	Carriage	cum/trip	5.50	per hour	603.00
PM-047	P&M-059	Vibratory roller 80-100 kN	Compaction of soil WMM	cum/h	100.00	per hour	603.00
PM-048			Compaction of BM	cum/h	60.00	per hour	603.00
PM-049	P&M-060	Water tanker 6 kl capacity (Truck Mounted)	Carriage of water	litre/h	12000.00	per hour	603.00
PM-050	P&M-060	generator 3KVA	stitching	per hour		per hour	603.00
PM-051	P&M-060	stitching machine	stitching	day		day	603.00

(Basic Rates Taken From SOR, Seventeenth Edition, Road Construction Department, Govt. of Bihar effective from 01/07/2024.

Executive Engineer
RWD, Works
Division
Kishanganj-1

Executive Engineer
RWD, Works Division
Kishanganj-2

Executive Engineer
RWD, Works Division
Araria

Executive Engineer
RWD, Works Division
Forbesganj

Superintending Engineer
Rural Works Department
Works Circle Kishanganj

Comparison of carriage cost of Material via Road from different sources														
Sl No	Item	Unit	Source	Pucka / Surface				Katcha				Loading & Road	Carriage by Road	Total
				Carriage Cost & Lead in Km										
1	By Tractor													
A	Earth Work Via Road	Cum	Local	3.60										
				2.04	x 20.04	x 0 Km	= Rs 0.00	3.60	2.04	x 31.30	x 0 Km	= Rs 55.24	219.18	274.42
B	Brick Bat Via Road	Cum	Local	3.60										
				2.04	x 20.04	x 7 Km	= Rs 247.55	3.60	2.04	x 31.30	x 1 Km	= Rs 55.24	219.18	274.42
B	Bamboo Via Road	pet mtr.	Local	3.60	x 20.04	x 2 Km	= Rs 1.15	3.60	2.04	x 31.30	x 1 Km	= Rs 55.24	219.18	521.97
				126.00				126.00	x 31.30	x 1 Km	= Rs 0.89	0.96	3.00	3.00
D	Local Sand Via Road	Cum	Local	3.60										
				2.04	x 20.04	x 2 Km	= Rs 70.73	3.60	2.04	x 31.30	x 1 Km	= Rs 55.24	219.18	345.14
2	By Tipper													
A	GSB Via Road	Cum	Siliguri	8.00	x 9.83	x 177 Km	= Rs 2789.43	8.00						
				4.99				4.99	x 23.81	x 0 Km	= Rs 0.00	170.70	2960.13	2960.130
3	By Truck													
A	Hume Pipe (1000 mm) Via Rod	Mtr.	purnea	8.00										
				10.00	x 7.27	x 53 Km	= Rs 308.25	8.00	10.00	x 17.60	x 0 Km	= Rs 0.00	437.68	745.93
A1	Rate Per Mtr. Pipe	Mtr.	purnea											
B	Hume Pipe (600 mm) Via Road	Mtr.	purnea	8.00										
				25.00	x 7.27	x 53 Km	= Rs 123.30	8.00	25.00	x 17.60	x 0 Km	= Rs 0.00	187.58	310.88
B1	Rate Per Mtr. Pipe	Mtr.	purnea											

Cost of Haulage Excluding Loading & Unloading as per SO

Subjected to Verification of Lead

Executive Engineer
RWD, Works Division
Kishanganj-1

Executive Engineer
RWD, Works Division
Kishanganj-2

Executive Engineer
RWD, Works Division
Atraria

Executive Engineer
RWD, Works Division
Fortdeganj

SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	QTY	Rate	Amount in Rs
Carriage Of Material (By Tractor)						
4.4		Loading and unloading of stone Boulder /stone aggregates sand/ kankar/ moorum				
		Placing tractor at loading point loading with front end loader dumpoing ,turning for return trip excludng time for haulage and return trip				
		Unit = cum				
		Taking output = 2.25 cum				
		Time required for				
	i)	positioning of tractor at loading point	min	1 min		
	ii)	Loading by front end loader 1 cum bucket capacity @ 25 cum	min	5 min		
		Total		6 min		
	a)	Labour				
		Mate	day	0.030	434.00	13.02
		Mazdoor (Unskilled)	day	0.720	410.00	295.20
	b)	Machinery				
		Tractor 3.60 Tonnes Capacity	hour	0.100	676.00	67.60
		Front end loader 1 cum bucket capacity @ 25 Cum/hour	hour	0.083	1,419.00	117.78
		Cost for 2.25 cum = a+b+c				493.60
		Rate per cum = (a+b+c)/2.25	cum			219.378
		Total per cum				219.378
1.10		Haulage excluding Loading & Unloading				
		Haulage of materials by truck excluding cost of Loading, Unloading and stacking				
		Unit = 7km				
		Taking output 3.6t load and lead 10km = 36t/km				
		Case- I : Surfaced Road				
		Speed with load : 15km per hour				
		Speed while returning empty : 25km per hour				
	a)	Machinery				
		Tractor 3.6 tonnes Capacity				
		Haulage with load	hour	0.667	676.00	450.89
		Empty return trip	hour	0.400	676.00	270.40
		Cost for 36t/km = a+b+c				721.29
		Cost for 1 t km = a+b/36				20.040
		Total per t per km				20.040
		Case - II 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				
		Tractor 3.6 tonnes Capacity				
		Haulage with load	hour	1.00	676.00	676.00
		Empty return trip	hour	0.667	676.00	450.89
		Cost for 36t/km = a+b+c				1126.89
		Cost for 1 t km = a+b/36				31.300
		Total per t per km				31.300
Carriage Of Material (By Tipper)						
1.1		Loading and Unloading Lime, Aggregate, Stone Boulder, Brick Aggregate, Kankar, Building Rubbish, Crushed Slag, Stone for Masonry Work by Manual Means				
	(1)	Loading of lime, Aggregates, Stone boulder, Brick aggregate, Kankar, Building Rubbish, Crushed Slag Stone for masonry work by manual means including a lead upto 30m				
		Unit = cum				
		Taking output = 5.5 cum				
		Time required for				
	(i)	Position of tipper at loading point		1Min		
	(ii)	loading by front end loader 1 cum bucket capacity @25		13Min		
	(iii)	maneuvering, reversing, dumping and turning for return		2Min		
	(iv)	Waiting time unforeseen contingencies etc.		4Min		
		Total		20Min		
	b)	Machinery				
		Tipper 5.5 Tonnes Capacity	hour	0.330	1,426.00	470.58
		Front end loader 1 cum bucket capacity @ 25 Cum/hour	hour	0.330	1,419.00	468.27
		Cost for 5.5 cum = a+b+c				938.85

		Rate per pipe = (a+b+c)/9				266.732
		Total per pipe	per p			266.732
	C	600/450 mm dia Hume pipe				
		Unit = per pipe				
		Taking output = 21 pipe				
	a)	Labour				
		Mate	day	0.02	434.00	8.68
		Mazdoor (Unskilled)	day	0.50	410.00	205.00
	b)	Machinery				
		Tractor 3.60 Tonnes Capacity	hour	0.33	1054.00	347.82
		Crane	hour	0.33	5573.00	1839.09
		Cost for 21 pipes = a+b+c+d				2400.59
		Rate per pipe = (a+b+c)/21	per p			114.314
		Total per pipe				114.314
	(iii)	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				
		Mate	day	0.02	434.00	8.68
		Mazdoor (Unskilled)	day	0.50	410.00	205.00
	b)	Machinery				
		Truck	hour	0.20	1054.00	210.80
		Crane	hour	0.20	5573.00	1114.60
		Cost for 9 pipes = a+b+c+d				1539.08
		Rate per pipe = (a+b+c)/9	per p			171.009
		Total per pipe				171.009
	C	600/450 mm dia Hume pipe				
		Unit = per pipe				
		Taking output = 21 pipes				
	a)	Labour				
		Mate	day	0.020	434.00	8.68
		Mazdoor (Unskilled)	day	0.50	410.00	205.00
	b)	Machinery				
		Truck	hour	0.20	1054.00	210.80
		Crane	hour	0.20	5573.00	1114.60
		Cost for 21 pipes = a+b+c+d				1539.08
		Rate per pipe = (a+b+c)/21	per p			73.290
		Total per pipe				73.290
1.9		Loading and Unloading of Bamboo				
	(i)	Loading & unloading Bamboo				
		Unit = per metre				
		Taking output = per mtr.				
	a)	Material				
		Bamboo = 2015/300	per pipe			6.72
		Bamboo Per Mt	per mt			0.96
		Total per m				0.96
3.3	301.5	Construction of Embankment with material obtained from roadway cutting				
		Construction of Embankment with approved material deposit at site from roadway cutting and excavation from drain and foundation of other structure graded and compacted to meet requirement of Table 300.1 and 300.2 as per Technical Specification Clause 301.5.				
		Unit = cum				
		Taking output = 100 cum				
	a)	Labour				
		Mate	day	0.02	434.00	8.68
		Mazdoor (Unskilled)	day	0.50	410.00	205.00
	b)	Machinery				
		Dozer D-50 for spreading @200 cum per hour	hour	0.50	0.00	0.00
		Motor Grader for grading @200 Cum per hour	hour	2.00	697.00	1,394.00
		Water tanker 6 kl capacity	hour	2.00	752.00	1,504.00
	c)	Three Wheel 80-100 kN Static Roller	hour	1.25	1593.00	1,991.25
		Material				
		Water	kl	12.00	60.30	723.60
		Cost for 100 cum = a+b+c+d+e				5826.53

			Rate per cum = (a+b+c+d)/100						58.265
			Total per cum		cum				58.265
5	3.5	301.5	Excavation in soil with Dozer with lead upto 100 m						
	(ii)		Excavation for roadway in soil by mechanical means including cutting and pushing the earth to site of embankment upto a distance of 100 m, including trimming bottom and side slopes in accordance with requirements of lines, grades and cross-sections.						
			Unit = cum						
			Taking output = 100 cum						
	a)		Labour						
			Mate						
			day	0.08	434.00	31.60			
	b)		Mazdoor (Unskilled)						
			day	2.00	410.00	822.00			
			Machinery						
			Dozer D-50 for spreading @200 cum per hour						
			hour	3.60	4326.00	15,573.60			
			Cost for 100 cum = a+b+c+d+e						
			16427.20						
			Rate per cum = (a+b+c+d)/180						
			cum			91.262			
			Total per cum						
			cum			91.260			
6	3.3	301.5	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 Table 300.1 and 300.2 with a lead of 1000 m as per Technical						
			Unit = cum						
			Rate Item no. 3.3 Clause 301.5						
			58.265						
			Rate Item no. 3.5(ii) Clause 301.5						
			91.260						
			Royalty Compensation for earth taken from private land						
			35.250						
			Carriage of Earth by Tractor Lead 1 K.M.						
			274.420						
			Total Cost of 1 cum =						
			459.195						
			Labour Cess @ 1%						
			4.590						
			G.S.T. @ 18%						
			82.655						
			Add Seigniorage Fee @ 10 % of Materials						
			cum	1.00	35.25	3.53			
			Total Cost of 1 cum 1% Cess & 18% GST =						
			549.970						
7	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 haulage and return trip						
			Unit = cum						
			Taking output = 2.83 cum						
	a)		Labour						
			Mazdoor (Unskilled)						
			day	2.170	410.00	889.70			
	b)		Materials						
			Brick Bats						
			cum	3.396	1,081.00	3671.08			
			Total (a+b) =						
			4560.78						
			Total (a+b+c) =						
			4560.78						
	d)		Carriage						
			Brick Bats						
			cum	3.396	521.97	1772.61			
			TOTAL						
			6333.39						
			Rate per cum = (a+b+c+d)/2.83						
			cum			2237.947			
			Total per cum						
			cum			2237.947			
			Labour Cess @ 1%						
			22.379						
			G.S.T. @ 18%						
			402.830						
			Add Seigniorage Fee @ 10 % of Materials						
			cum	1.20	1,081.00	129.72			
			Total Cost of 1 cum 1% Cess & 18% GST =						
			2292.877						
8	4.1	401	PAVEMENT CRUST LAYERS						
			For Grading II 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.						
	(ii)		For Grading II Material						
			Unit = cum						
			Taking output = 300 cum						
	a)		Labour						
			Mate						
			day	0.48	434.00	208.32			
			Mazdoor (Skilled)						
			day	2.00	472.00	944.00			
			Mazdoor (Unskilled)						
			day	10.00	410.00	4100.00			

b)	Machinery				
	Tractor mounted grader arrangement				5252.32
	Three wheel 80-100 kN static roller @ 10 cum per hour	hour	12.00	676.00	8112.00
	Tractor with Rotavator 25 cum per hour	hour	30.00	1593.00	47790.00
	Water tanker 6 kl capacity	hour	12.00	693.00	8316.00
c)	Material				
	Well graded granular sub-base material as per Table 400.1				67978.00
	GSB				
	Cost of 300 cum without Carriage = (a+b+c+d+e)	cum	1.28	167.03	213.80
	A) Basic Cost per cum = (a+b+c+d+e)/300				73444.12
	CARRIAGE	cum			244.814
	G.S.B.				
	Carriage cost of 300 cum	Cum	414.00	2960.13	1225493.82
	B) Carriage cost per cum				1225493.82
	Rate per cum = (A+B)				4084.98
	Total per cum	CUM			4329.794
	Labour Cess @ 1%	CUM			4329.794
	G.S.T. @ 18%				43.298
	Add Seigniorage Fee @ 10 % of Materials				779.363
	Total Cost of 1 cum @ 18% Cess & 18% GST =	cum	1.28	167.03	21.38
9.3	1100	Providing 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 Clause 1106.			
	B.	1000 MM DIA (Single Row)			
	a)	Material			
		RCC NP3 pipe including collar			
	b)	Labour	m	7.50	5787.23
		Mate	day	0.09	434.00
		Mason (1st class)	day	0.25	503.00
		Mazdoor (Unskilled)	day	2.00	410.00
		Cost for 7.5m = (a+b+c)			44389.04
		A) Basic Cost per m = (a+b)/7.5	m		5918.54
		Rate per m of Pipe			5918.54
	(d)	CARRIAGE COST			
		NP3 Pipe	m	7.5	298.37
		Carriage cost of 7.5 m			2237.78
		Carriage cost per m	m		298.37
		Rate per m with Carriage	m		6,216.909
		Total per m	m		6,216.909
		Labour Cess @ 1%			62.169
		G.S.T. @ 18%			1,119.044
		Total Cost of 1 mtr @ 1% Cess & 18% GST =			7,398.121
2	C.	600 MM DIA (Single Row)			
	a)	Material			
		RCC NP3 pipe including collar	m	7.50	2310.00
	b)	Labour			17325.00
		Mate	day	0.04	434.00
		Mason (1st class)	day	0.12	503.00
		Mazdoor (Unskilled)	day	0.96	410.00
		Cost of 7.5m = (a+b+c+d)			17796.32
		A) Basic Cost per m = (a+b)/7.5	m		2372.84
		Rate per m of Pipe			2372.84
		CARRIAGE COST			
		NP3 Pipe	m	7.5	124.35
		Carriage cost of 7.5 m			932.63
		B) Carriage cost per m	m		124.35
		Rate per m with Carriage	m		2,497.193
		Total per m	m		2,497.193
		Labour Cess @ 1%			24.972
		G.S.T. @ 18%			449.495
		Total Cost of 1 mtr @ 1% Cess & 18% GST =			2,971.660
3	5.7.40.1	Labour for filling empty cement bags with local sand, stitching the bags and placing including supply of suttu etc. all complete as per approved design, specification and direction E/I.			

		Unit = Per % Nos.				
		(A) For Filling & Stitching & Stacking				
		Labour				
		Skilled Labour for filling sand into bags and sewing sutali	No.	2.00	472.00	944.00
			kg	0.50	20.59	10.30
		(B) Labour Rate For Carrying & Placing filed E.C. Bags.				
		Labour				
		Skilled Labour for Carrying filed bags and placing to work site	No.	3.00	472.00	1416.00
		TOTAL =				2370.30
		Per % Nos. (B) =			Say.	2370.30
		Rate per bag (A+B) = /100				23.70
		(C) Cost of empty cement bag & cost of sand	each			11.11
		(D) Carriage cost				
		Tractor with trolley	cum	0.034	345.14	11.73
		(G) Total = (A+B+C+D) =				46.55
		Labour Cess @ 1%				0.465
		G.S.T. @ 18%				8.379
		Add Seigniorage Fee @ 10 % of Materials				
		Total Cost of E.C. Bag 1% Cess & 18% GST =	cum	0.034	144.75	0.49
4	5.7.9	Supply Labour for fitting and fixing 62 mm to 75 mm dia bamboo runners in position at every verticle pile with 150 mm long nails or 38 swg G. I. wire including cost of G.I. or nails complete job as per specification and direction				
		Unit = Per mt.				
		Taking Out Put = 30.50 m				
	(i)	Materials				
		Bamboo	m	30.50	20.21	616.41
		Nails	kg	0.50	108.00	54.00
	(ii)	Labour				
		Carpenter Gr - II	No.	0.125	503.00	62.88
		Unskilled Labour	No.	0.25	410.00	102.50
		Rate for 30.5 m				835.79
		TOTAL =				835.79
		Rate per mt				27.40
	(iii)	Carriage cost				
		bamboo	mt	1	3.00	3
		Total Cost with Carriage				30.40
		Labour Cess @ 1%				0.304
		G.S.T. @ 18%				5.473
		Total Cost of 1 mtr. 1% Cess & 18% GST =				36.177
5	5.7.7	Labour for cutting 62 mm to 75 mm dia bamboo piles in size and making shoes and driving etc. complete job as per specification and direction E/I.				
		Unit = Per mt.				
		Taking Out Put = 30.50 m				
		Assuming				
		20 no pile sunk 1.525 m deeps				
		Total depth sunk 30.50 m				
	(i)	Materials				
		Bamboo	m	30.50	20.21	616.41
	(i)	Labour				
		Carpenter Gr - II	No.	0.25	503.00	125.75
		Unskilled Labour for piling	No.	2.50	410.00	1025.0
		Rate for 30.5 m				1767.16
		Total				1767.16
		Rate for 1 m				57.94
		Carriage Cost of Bamboo	per mtr.			3.00
		Total Cost with Carriage				60.94
		Labour Cess @ 1%				0.609
		G.S.T. @ 18%				10.969
		Total Cost of 1 mtr. 1% Cess & 18% GST =				72.518

		Labour for fitting and and fixing Steel Drum 300 mm dia 1.2 m high as per specification and direction			
		(Assuming Per Mtr. = $3.14 \times 0.30 = 0.942$ mtr.)			
		Area of Assuming in one Drum = $0.942 \times 1.20 = 1.130$ Sqm			
		One Sqm sheet Cost = $127.80 / 1.130 = 113.12$ Cost			
		Unit = per sqm			
		Taking Out = 100 sqm			
	a	Labour			
		Hammer man			
		Mazdoor (Unskilled)			
		No.	4.00	503.00	2012.00
		Carpenter 1st Class			
		No.	4.00	410.00	1640.00
	b	Materials			
		No.	4.00	503.00	2012.00
		Nails			
					5664.00
		Steel Drum sheet			
		kg	5.00	170.13	850.65
		Nos.	88.5	170.13	15056.51
		Rate Per m = $(a+b+c)/100$			
		Labour Cess @ 1%			
		G.S.T. @ 18%			
		Total Cost of 1 mtr. @ 1% Cess & 18% GST			
5.7.8	WRD	Labour for fitting and and fixing split bamboo woven chachari in position with 20 swg G.I. wire of 75 mm to 100 mm long nails alternatively including cost of G.I. wire or nails complete job as per specification and direction of E/I.			
		(Assuming strip of $3.05 \times 3.05 = 9.30$ sqm			
		Unit = per sqm			
		Taking Out = 9.30 sqm			
	a	Labour			
		Carpenter Gr -II			
		No.	1.00	531.00	531.00
		Mazdoor (Unskilled) for pilling			
		No.	1.00	410.00	410.00
	b	Materials			
		Bamboo			
		Mtr.	10.00	188.00	1880.00
		Nails			
		kg	0.25	108.00	27.00
		Rate Per m = $(a+b+c)/9.30$			
		Labour Cess @ 1%			
		G.S.T. @ 18%			
		Total Cost of 1 mtr. @ 1% Cess & 18% GST			
5.7.50		Providing laying & filling Geo bags of size 1m X 0.700m (Type A) 300 GSM nonwoven) weight 420 gm volume of filled bag 0.070 cum Weight of filled Geo bag 126 kg with local sand including stitching in four lines by approved Nylon thread with Staching machine and generator, stacking and placing after loading, Unloading and carriage with the help of Trolley within 150 mtr. lead and all complete as per specification and direction of E/I.			
		Unit = Each Bag			
		Taking Out = 40 Nso.			
		Labour			
		Unskilled Loading For filling stacking			
		nos	2	410.00	820.00
		Skilled labour for stacking			
		nos	0.33	472.00	155.76
		Unskilled labour for carring and placing			
		nos	4.00	410.00	1640.00
		Mate			
		nos	0.25	434.00	108.50
		Stiching Machine			
		day	0.33	50.00	16.50
		Tractor with trolley			
		day	1.00	676.00	676.00
		Generator 3KVA			
		hrs	20.67	74.00	1529.58
		Total			
		Rate per bag (total/40) (A)			
	(II)	charge for placing & dumping			
		unskilled labour for loading unloading & dumping			
		nos	16	410.00	6320.00
		Mate			
		nos	1	434.00	419.00
		Tractor with trolley			
		each	4	676.00	2704.00
		Total			
		Rate per bag (Total/256) (B)			
		Matroials			
		cost of Geo Bag			
		each	1	124.00	124.00
		Total cost (a+b+c)			

		Rate per bag				284.545
		Labour Cess @ 1%				2.845
		G.S.T. @ 18%				51.218
		Add Seigniorage Fee @ 10 % of Materials	cum	0.070	144.75	1.01
		Total Cost of 1 Bag 1% Cess & 18% GST				339.61
5.7.40.3		Labour for filling empty cement bags with local sand, stitching the bags and pitching in Nylon crate of size (1m x 1m x 1m) with a lead of 150 m including supply of suti etc. and placing the filed crates in water portion within a lead 30 m all complete as per approved design, specification and direction of E/I.				
		Unit = Each N.C.				
	(i)	(i) Labour Cost for filling bags in one Nylon crate in dry portion	No.	1	472.00	411.00
	(ii)	(i) Labour Cost for filling bags in one Nylon crate in dry portion	No.	1	472.00	611.00
		(ii) Placing of filed N/C with 30 m lead in water portion				
		Labour				
		Mate	No.	0.37	434.00	160.58
		Labour(Skilled)	No.	1.00	472.00	472.00
		Labour(Unskilled)	No.	1.00	410.00	410.00
						2064.58
						2064.58
		Hence, Total Labour for 100 Cft.				
		Taking one E.C. Bags to contain 1.20 Cft. Of sand				
	(ii)	Hence, labour rate for placing one filed N.C.		356.49		356.49
		Hence rate per mu;pm crate on water portion (I+II)			Say.	967.49
		Labour Cess @ 1%				9.675
		G.S.T. @ 18%				174.148
		Add Seigniorage Fee @ 10 % of Materials	cum	0.034	144.75	0.49
		Total Cost of 1 E.C. 1% Cess & 18% GST				1151.803
		Local sand filling in foundation trenches as per drawing and technical specification				
		Local sand filling in foundation trenches as per drawing and technical specification Clause 305.3.9				
	I.	Sand filling				
		Unit = cum				
	a)	Labour				
		Mate	day	0.01	434.00	4.34
		Mazdoor (Unskilled)	day	0.30	410.00	123.00
	b)	Material				
		Sand (assuming 20 per cent voids)	cum	1.20	144.75	173.70
		Overheads @ 6 % on (a)				18.06
						319.10
		CARRIAGE COST				
		sand	Cum	1.2	345.14	414.17
		Rate per cum = a+b+c				733.27
		Total Cost including 1 % LABOUR CESS				7.33
		G.S.T. @ 18%				131.99
		Add Seigniorage Fee @ 10 % of Materials				0.49
		Total Cost of 1 E.C. 1% Cess & 18% GST				1287.25

Executive Engineer
RWD, Works Division
Kishanganj-1

Executive Engineer
RWD, Works Division
Kishanganj-2

Executive Engineer
RWD, Works Division
Forbesganj

Executive Engineer
RWD, Works Division
Forbesganj

Superintending Engineer
Rural Works Department
Works Circle Kishanganj