

RURAL WORKS DEPARTMENT GOVT OF BIHAR



NAME OF WORKS :- Tegnihat - Choukta

BLOCK :- Jokihat

FDR
Phase-I
41,77,245

YEAR(2024-25)

R.W.D., WORKS CIRCLE, KISHANGANJ

R.W.D., WORKS DIVISION, ARARIA

प्रतिवेदन

Tegunihat - Choukta

पथ का नाम :-

Tegunihat - Choukta

कार्य का नाम :-

में बाढ़ से क्षतिग्रस्त भाग में यातायात चालू करने का कार्य।

संलग्न प्राक्कलन 2024 को प्रखण्ड में आयी भीषण बाढ़ से क्षतिग्रस्त
में बाढ़ क्षतिग्रस्त मरम्मत मद से यातायात चालू करने हेतु तैयार किया गया है जिसकी प्रमाणित प्रतियाँ प्रखण्ड कार्यालय में भेजी गई हैं।
प्राक्कलित लागत 41,77,245 (Forty-One Lacs and Forty-Five Thousand Two Hundred and Forty-Five Rupees only) है।
तन्निर्माण योजनान्तर्गत हुआ है एवं योजना अनुसूची अवधि में है।
यह के कटे (क्षतिग्रस्त) भाग में आवश्यकता अनुसार Hume Pipe, Bamboo, लोकल बालू एवं
Jank Bats देने के बाद यातायात चालू कराया गया है। पथ के विभिन्न हिस्से में कराये गये कार्य
तत्तिविरणी स्पष्ट रूप से प्राक्कलन में दर्शाया गया है।
प्राक्कलन मदों का दर वर्तमान अनुसूचित दर के अनुरूप है।



जनीय अभियंता,

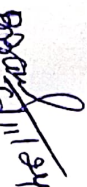
सहायक अभियंता,

ग्रामीण कार्य विभाग,

ग्रामीण कार्य विभाग,

नगर प्रशाखा, जिला, 2024।

कार्य अवर प्रमण्डल,।





कार्यपालक अभियंता,

ग्रामीण कार्य विभाग,

कार्य प्रमण्डल,।

SUMMARY OF COST ESTIMATE FOR THE PROJECT		
NAME OF ROAD :-	Tegulhat - Choukta	
DISTRICT :-	ARARIA	
BLOCK :-	Jokihat	
Length of Road:-	0.00KM	
Length of Cutting in mtr :-	155.000	
Sl. No.	DESCRIPTION	AMOUNT (LAKHS)
1	Filling of local sand	0.00
2	Labour for cutting 62mm to 75mm dia bamboo	0.00
3	Labour for fitting 62mm to 75mm dia bamboo	0.00
4	Labour for filling empty cement bags with local sand Nylon crate	0.00
5	Supplying of EC bag, of local sand	2087062.12
6	Geo bags	2075183.00
7	Supply and Carriage of brick bats	0.00
8	Supply, laying and carriage of 1000 mm HPC	0.00
9	Drone Videography Charj Three times	15000.00
	SUB TOTAL COST =	4177245.12
	TOTAL (RS.) =	41,77,245

J.E. *[Signature]*
6/11/24

A.E. *[Signature]*
11/24

E.E. *[Signature]*
6/11/24

S.E

Technically ~~Sanctioned~~ Approved for Rs 41,77,245.00
(Repees for every one thousand Seven thousand and four hundred and forty five)

[Signature]
Superintending Engineer,
RWD Work Circle
Kishanganj

Bill of Quantity

NAME OF ROAD :-		Tegunhat - Choukta			
DISTRICT :-		ARARIA			
BLOCK :-		Jokihat			
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	0.00	CUM	1272.76	0.00
3	Labour for cutting 62 mm to 76mm dia bamboo piles to size and making shoes & driving by jet machine etc. all complete job as per specification & direction of Engineer-in-charge	0.00	MTR	69.19	0.00
4	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.	0.00	MTR	35.95	0.00
5	Labour for filling empty cement bags with local 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 sutt etc. at site in dry portion all complete as per approved design, specification and direction of E/I	0.00	Each	1151.80	0.00
6	Supplying of EC bag, filling of local sand stitching and placing in position as the direction of Engineer-in-charge.	37349.00	Each	55.88	2087062.12

7	Providing laying & filling Geo bags of size 1m X 0.700m (Type A) 300 GMM (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 stitching machine and generator, stitching and placing after loading. Unloading and carriage with the help of Trolley within 160 mtr. lead and all complete as per specification and direction of E/I	0238.07	Each	332.74	2076183.00
8	Supply and Carriage of brick bats upto 8 km breach and placing in breaches and tying of bats, all complete job.	0.00	CUM	2760.12	0.00
9	Supplying and Carriage of hume pipe 1000 mm dia. , all complete job	0.00	RM	7385.66	0.00
		A) SUB TOTAL =		4162245.12	
		TOTAL COST =		4162245	

Shankar
6/11/12

Shankar
6/11/12

Shankar
6/11/12

J.E

A.E

E.E

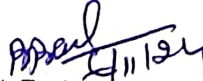
ESTIMATE FOR REPAIRING / RESTORATION/ MAKING MOTORABLE ROADS DAMAGED DURING FLOOD

NAME OF ROAD :-		Tegnihat - Choukta							
DISTRICT :-		ARARIA							
BLOCK :-		Jokihat							
Length of Cutting:-		155.00 mtr							
Sl. No.	DESCRIPTION OF ITEMS	Unit	Nos.	L(m)	B(m)	D(m)	QUANTITY	RATE (Rs.)	AMOUNT (Rs.)

1	Supplying of EC bag, filling of local sand stitching and placing in position as the direction of Engineer-in-charge.								
	At ch:-2.900km Bridge Approach	cum	1	13.00	(3.25+2.05)/2	(3.5+4.85+3.25)/3	133.21		
	At ch:-2.900km Bridge Approach	cum	1	12.50	(3.05+2.25)/2	(3.5+4.85+3.25)/3	128.08		
	At ch:-2.900km Bridge Approach	cum	1	13.00	(2.5+1.85)/2	(3.5+4.85+3.75)/3	114.04		
	At ch:-2.900km Bridge Approach	cum	1	15.00	(2.5+1.25)/2	(3.5+4.85+4.75)/3	122.81		
	At ch:-2.900km Bridge Approach	cum	1	15.00	(3.05+2.25)/2	(3.5+4.85+3.75)/3	160.33		
	At ch:-2.900km Bridge Approach	cum	1	11.50	(2.5+1.85)/2	(3.5+4.85+3.75)/3	100.88		
	At ch:-2.900km Bridge Approach	cum	1	18.50	(2.5+1.25)/2	(0.5+4.85+3.75)/3	105.22		
	At ch:-2.900km Bridge Approach	cum	1	18.00	(3.05+2.25)/2	(2.5+3.85+3.75)/3	160.59		
	At ch:-2.900km Bridge Approach	cum	1	18.00	(2.5+1.85)/2	(2.85+2.5+3.75)/3	118.76		
	At ch:-2.900km Bridge Approach	cum	1	7.50	(2.5+1.25)/2	(3.5+2.25+3.75)/3	44.53		
	At ch:-2.900km Bridge Approach	cum	1	13.00	(2+2.5)/2	(2.65+3.25+2.45)/3	81.41		
	Total No of E C Bags(0.034cum=100Bags)			1269.86 / 0.034			37349.00		
		Each	Say No of Bage :-					37349.00	55.88

2	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 Trolly within 150 mtr. lead and all complete as per specification and direction of E/I.							
	At ch:-2.900km Bridge Approach	cum	1	13.00	2.00	0.90	23.40	
	At ch:-2.900km Bridge Approach	cum	1	15.00	2.00	0.80	24.00	
	At ch:-2.900km Bridge Approach	cum	1	18.50	6.33	1.35	158.18	
	At ch:-2.900km Bridge Approach	cum	1	18.00	2.00	0.80	28.80	
	At ch:-2.900km Bridge Approach	cum	1	18.00	6.33	0.80	91.20	
	At ch:-2.900km Bridge Approach	cum	1	7.50	6.33	0.95	45.13	
	At ch:-2.900km Bridge Approach	cum	1	13.00	6.33	0.80	65.87	
	(0.07m ³ =1 no. of Geo Bags)			436.57	/	0.07	6236.67	
	Each						6236.67	332.74
								2075182.996
							A) SUB TOTAL =	4162245.12
							TOTAL COST =	4162245.12


6/11/24
Junior Engineer


6/11/24
Asstt. Engineer


6/11/24
Executive Engineer

S.E
KISHANGANJ

FINAL RATE UNDER WORKS CIRCLE KISHANGANJ

S.No	Description of Item	Unit	Final Rate (Excluding GST, Storage & L. Cost)	Final Rate (Including GST, Storage & L. Cost)	S.F. Per Cum / Per Bag
1	EARTH WORK	CUM	459.003	549.740	3.530
2	BRICK DAT	CUM	2209.570	2759.115	129.720
3	G.S.B	CUM	4328.501	5172.300	21.380
4	SAND BAG (Cement Bag)	Each	46.550	55.880	0.490
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 Dia)	Per Mtr.	6206.598	7385.850	
9	HUME PIPE (600 mm Dia)	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	1.010
12	EACH N.C. BAG WITH SAND (Cement Bag)	Each E.C	967.490	1151.800	0.490
13	LOCAL SAND	CUM	721.110	1272.780	0.490

Junior Engineer
6/11/24

Assistant Engineer
6/11/24

Executive Engineer
6/11/24

Superintending Engineer
Rural Works Department
Works Circle Kishanganj

**BASIC RATES
(A) Labour**

Sl. No.	Description of Labour	Unit	Rate (Rs.)
L-01	Mason	dn	373
L-02	Plumber (Semi-skilled)	dn	393
L-03	Blacksmith (Semi-skilled)	dn	503
L-04	Blaster (Semi-skilled)	dn	619
L-05	Carpenter 1st Class	dn	503
L-06	High speeder semi-skilled	dn	449
L-07	Smelter (Semi-skilled)	dn	577
L-08	Driver (Semi-skilled)	dn	472
L-09	Driller 2nd class	dn	449
L-10	Electrician skilled	dn	476
L-11	Painter skilled	dn	511
L-12	Mason (1st class)	dn	503
L-13	Mason (2nd Class)	dn	449
L-14	Mate Semi skilled	dn	397
L-15	Mazdoor (Unskilled)	dn	373
L-16	Mazdoor (Semi skilled)	dn	388
L-17	Mazdoor (Skilled)	dn	472
L-18	Painter (1st class)	dn	476
L-19	Plumber Special	dn	476
L-20	Smelter	dn	454
L-21	Blaster 1st class	dn	476
L-22	Head Blacksmith	dn	531
L-23	Welder 1st Class	dn	584
	Carpenter Head	day	531
	Engine Driver	day	415

*(Basic Rates Taken From SOR, Seventeenth Edition, Road Construction Department, Govt. of Bihar
effective from 01/04/2023)*

BASIC RATES
(1b) Material

Sr. No	Description	Unit	Basic Rate as per SOR	Add Royalty	Final Rate With Royalty
M-001	Balmsno (1st Class) 100 mm x 100 mm dia. 6.0 m x 8.0 m long (per mtr. x 23.52 Rs.)	No.	188.00		188.00
M-002	Balmsno (1st Class) 100 mm x 100 mm dia. 6.0 m x 8.0 m long (per mtr. x 23.52 Rs.)	No.	188.00		188.00
M-003	Balmsno (1st Class) 50 mm x 100 mm dia. 6.0 m x 8.0 m long (per mtr. x 14.71 Rs.)	No.	118.00		118.00
M-004	Balmsno (1st Class) 50 mm x 100 mm dia. 6.0 m x 8.0 m long (per mtr. x 14.71 Rs.)	No.	118.00		118.00
M-005	Balmsno (2nd Class) 75mm dia. 1.8 m x 6.0 m x 8.0 m long (per mtr. x 22.03 Rs.)	No.	176.00		176.00
M-006	Balmsno (2nd Class) 75mm dia. 6.0 m x 8.0 m long (per mtr. x 22.03 Rs.)	No.	176.00		176.00
M-007	Brick Bats	cum	1065.00	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	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	Each	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 01/04/2023.*

SUMMARY OF CARRIGE COST

Sl. No.	Item	Unit	Amount (Rs.)
1	Earth Work	Cum	274.42
2	Brick Bats	Cum	521.97
3	Bamboo	Per Mtr.	3.00
4	G.S.B.	Cum	2960.13
5	Local Sand	Cum	345.14
6	HUME PIPE (1000 mm DIA)	Per Pipe	745.93
7	HUME PIPEP PIR METER	Per Mtr.	298.37
8	HUME PIPE (600 mm DIA)	Per Pipe	310.88
9	HUME PIPE (600 mm DIA)	Per Mtr.	124.35
10	Local Sand	Cum	345.10

Comparison of carriage cost of Material via Road from different sources																		
Sl No	Item	Unit	Source	Carriage Cost & Lead in Km												Loading & Unload	Carriage by Road	Total
				Pucka / Surface				Katcha										
1	By Tractor																	
A	Earth Work Via Road	Cum	Local	3.60	x 20.04	x	0 Km	= Rs 0.00	3.60	x 31.30	x	1 Km	= Rs 55.24	219.18	274.42	274.420		
				2.04					2.04									
B	Brick Bat Via Road	Cum	Local	3.60	x 20.04	x	7 Km	= Rs 247.55	3.60	x 31.30	x	1 Km	= Rs 55.24	219.18	521.97	521.970		
				2.04					2.04									
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	x 20.04	x	2 Km	= Rs 70.73	3.60	x 31.30	x	1 Km	= Rs 55.24	219.18	345.14	345.140		
				2.04					2.04									
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	x 7.27	x	53 Km	= Rs 308.25	8.00	x 17.60	x	0 Km	= Rs 0.00	437.68	745.93	745.930		
				10.00					10.00									
A1	Rate Per Mtr. Pipe	Mtr.	purnea							Rate per mtr				298.37	298.370			
B	Hume Pipe (600 mm) Via Road	Mtr.	purnea	8.00	x 7.27	x	53 Km	= Rs 123.30	8.00	x 17.60	x	0 Km	= Rs 0.00	187.58	310.88	310.880		
				25.00					25.00									
B1	Rate Per Mtr. Pipe	Mtr.	purnea							Rate per mtr				124.35	124.350			

Cost of Haylage Excluding Loading & Unloading as per 50' Subjected to Verification of Lead

Chauhan
6/11/24
Junior Engineer
R.W.D. Works Section

Asstt. Engineer
R.W.D. Works Sub - Division,

Chauhan
6/11/24
Executive Engineer
R.W.D. Works

Sl. No.	DESCRIPTION	Unit	Qty	Rate	Amount in Rs
	Carriage Of Material (By Tractor)				
1.1	loading and unloading of stone boulder /stone aggregates sand/ konkar/ moorum Placing Tractor at loading point loading with front end loader dumping, turning for return trip excluding time for haulage and return trip				
	Load = 3 cum				
	Trucking output = 4.25 cum				
	Time required for				
	Positioning of tractor at loading point	min	1 min		
	Loading by front end loader 1 cum bucket capacity @ 25 cum	min	5 min		
	Total		6 min		
	Labour				
	Rate	day	0.030	397.00	11.91
	Machinery (Hired)	day	0.720	373.00	268.56
	Machinery				
	Tractor 3.6 Tonnes Capacity	hour	0.100	676.00	67.60
	Front end loader 1 cum bucket capacity @ 25 Cum/hour	hour	0.083	1419.00	117.78
	Cost per 2.25 cum = a+b+c				465.85
	Rate per cum = (a+b+c)/2.25	cum			207.044
	Total per cum	cum			207.044
1.10	Haulage excluding loading & unloading Haulage of materials by truck excluding cost of loading, unloading and stacking Unit = 7Kp				
	Taking output 3.6t load and load 10km = 36t/km				
	Case 1: Surfaced Road				
	Speed with load : 15km per hour				
	Speed while returning empty : 25km per hour				
	Machinery				
	Tractor 3.6 tonnes Capacity	hour	0.667	676.00	450.89
	Haulage with load	hour	0.400	676.00	270.40
	Empty return trip				721.29
	Cost per 36t/km = a+b+c				20.040
	Cost for 1 C km = a+b/36				20.040
	Total per 1 per km				20.040
	Case - II Kutcha Truck and Truck in River bed / Nullah Bed and Choe Bed				
	Speed with load : 10km per hour				
	Speed while returning empty : 15km per hour				
	Machinery				
	Tractor 3.6 tonnes Capacity	hour	1.00	676.00	676.00
	Haulage with load	hour	0.667	676.00	450.89
	Empty return trip				1126.89
	Cost per 36t/km = a+b+c				31.300
	Cost for 1 C km = a+b/36				31.300
	Total per 1 per km				31.300
1.1	Carriage Of Material (By Tipper)				
	loading and unloading Lime, Aggregate, Stone Boulder, Brick Aggregate, Konkar, Building Rubbish, Crushed Slag, Stone for Masonry Work by Manual Means				
	loading of lime, Aggregates, Stone boulder, Brick aggregate, Konkar, Building Rubbish, Crushed Slag Stone for masonry work by manual means including a load upto 30m				
	Unit = cum				
	Trucking output = 5.5 cum				
	Time required for				
	Position of tipper at loading point	min	1 min		
	loading by front end loader 1 cum bucket capacity @25	min	13 min		
	manoeuvring, reversing, dumping and turning for return	min	2 min		
	Waiting time unforeseen contingencies etc.	min	4 min		
	Total		20 min		
	Machinery				
	Tractor 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)/%A		1.00		170.70
Total per cum		6.00		170.70
1.10				
Handling excluding Loading & Unloading				
Handling of materials by truck excluding cost of Loading, Unloading and Stocking				
Truck - 10m				
Loading output 10m load and load 10km 100m km				
Case - I : Surfaced Road				
Speed with load 25km per hour				
Speed while returning empty 15km per hour				
Machinery				
a) Tractor				
Handling with load				
Tractor return trip		hour	0.40	1426.00
Cost for 100m km a b c		hour	0.29	1426.00
Cost for 1 km = a+b+c/100				570.40
Total per Cum km				413.54
Case - II Kanchi Truck and Truck to River Bed / Nallab Bed and Chow Bed				
Speed with load 10km per hour				
Speed while returning empty 15km per hour				
Machinery				
a) Tractor				
Handling with load				
Tractor return trip		hour	1.00	1426.00
Cost for 100m km a b c		hour	0.67	1426.00
Cost for 1 km = a+b+c/100				955.42
Total per Cum km				2381.42
Total per Cum km				23.81
Total per Cum km				23.810
Carriage Of Material (By Truck)				
1.10				
Handling excluding Loading & Unloading				
Handling of materials by truck excluding cost of Loading, Unloading and Stocking				
Truck - 10m				
Loading output 10m load and load 10km 100m km				
Case - I : Surfaced Road				
Speed with load 25km per hour				
Speed while returning empty 35km per hour				
Machinery				
a) Truck				
Handling with load		hour	0.40	1054.00
Empty return trip		hour	0.29	1054.00
Cost for 100m km a b c				421.60
Cost for 1 km = a+b+c/100				305.66
Total per Cum km				727.26
Total per Cum km				7.270
Case - II Kanchi Truck and Truck to River Bed / Nallab Bed and Chow Bed				
Speed with load 10km per hour				
Speed while returning empty 15km per hour				
Machinery				
a) Truck				
Handling with load		hour	1.00	1054.00
Empty return trip		hour	0.67	1054.00
Cost for 100m km a b c				1054.00
Cost for 1 km = a+b+c/100				706.18
Total per Cum km				1760.18
Total per Cum km				17.600
1.9				
Loading and Unloading of Hume Pipes				
(i) Loading of H.C. Hume pipes by mechanical means including a load upto 50 m				
A. 1000 / 1200 mm dia Hume pipe				
Unit = per pipe				
Loading output = 9 pipes				
Labour				
a) Mate				
Handling (Unskilled)		day	0.02	307.00
Machinery		day	0.50	373.00
Truck		hour	0.34	1054.00
Total		hour	0.33	5573.00
Cost for 9 pipes = a+b+c/d				347.82
				1839.09
				2381.35

Rate per pipe x (a+b+c) x		Per P		264.594
Total per pipe				264.594
600/450 mm dia Hume pipe				
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		Rate per cum = (a+b+c+d) / 100				
		total per cum				
301.5		Excavation in soil with Power with front upto 100 m	cum			50.073
		Excavation for foundation in soil by machine of capacity in cubic m. having lifting and pushing the earth to site of subsoil and spreading of	cum			100.073
		load in including forming bottom and side slopes in accordance with requirements of B.O.S. in order and cross section				
301.5		Unit = cum				
		Working output = 100 cum				
	a)	Labour				
		Mate	day	9.00	397.00	31.60
	b)	Machinerey	day	2.00	171.00	172.00
		Power D. 50 per spreading @ 200 cum per hour	hour	3.60	4376.00	15,774.60
		Cost for 100 cum = a+b+c+d	cum			16471.20
		Rate per cum = (a+b+c+d)/100				91.266
301.5		Construction of Embankment with approved material obtained from borrow pits with a lift upto 1.5 m transporting to site, spreading	cum			91.266
		grading to required slope and compacting to meet requirement of Table 300.1 and 300.2 with a load of 1000 m or per Technical				
		Unit = cum				
		Rate item no. 3.3 Clause 301.5				50.073
		Rate item no. 3.5(ii) Clause 301.5				91.266
		Royalty Compensation for earth taken from private land				35.250
		Carriage of earth by Tractor Load 1 K.M.				274.420
		Total Cost of 1 cum =				459.003
		Labour Cess @ 1%				4.590
		G.S.T. @ 18%				82.621
		Add Signiorage Fee @ 10 % of Materials				3.53
		Total Cost of 1 cum 1% Cess & 18 % GST =	cum	1.00	35.25	549.743
45		Providing and Laying of Brick Bats				
		Placing tractor at heading point loading with front end loader dumping, turning for return trip excluding time for haulage and return				
		trip				
		Unit = cum				
		Working output = 2.83 cum				
	a)	Labour				
		Mazdoor (Unskilled)	day	2.170	373.00	1009.41
	b)	Materials				
		Brick Bats	cum	3.396	1,001.00	3671.00
						4480.49
		Total (a+b) =				
		Total (a+b+c) =				
	d)	Carriage				
		Brick Bats	cum	3.396	521.97	1772.61
		TOTAL				6253.10
		Rate per cum = (a+b+c+d)/2.83	cum			2209.576
		Total per cum	cum			2209.576
		Labour Cess @ 1%				22.096
		G.S.T. @ 18%				397.724
		Add Signiorage Fee @ 10 % of Materials				129.72
		Total Cost of 1 cum 1% Cess & 18 % GST =	cum	1.20	1,001.00	2,759.115
41	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.				
		Unit = cum				
		Working output = 300 cum				
	a)	Labour				
		Mate	day	0.48	397.00	190.56
		Mazdoor (Skilled)	day	2.00	472.00	944.00
		Mazdoor (Unskilled)	day	10.00	373.00	3730.00

	b)	Machinery							
		Tractor mounted grader arrangement	hour	12.00	676.09	4854.56			
		Three wheel 30-100 kN static roller @ 10.1 cum per hour	hour	30.00	1593.00	8112.00			
		Tractor with Rotavator 25 cum per hour	hour	12.00	693.00	47790.00			
		Water tanker 6 kl capacity	hour	5.00	752.00	8316.00			
	c)	Material				3740.00			
		Well graded granular sub-base material as per Table 400.1				61978.50			
		GSB	cum	1.28	167.03	213.80			
		Cost of 300 cum without Carriage = (a+b+c+d+e)				73954.36			
		A) Basic Cost per cum = (a+b+c+d+e)/300	cum			243.521			
		CARRIAGE:							
		6.5 B.	Cum	414.00	2960.13	1225492.82			
		Carriage cost of 300 cum				1225492.82			
		B) Carriage cost per cum				1225493.82			
		Rate per cum = (A+B)	CUM			4084.98			
		Total per cum	CUM			4328.501			
		Labour Cess @ 1%				43.285			
		G.S.T. @ 18%				779.130			
		Add Scaffolding Fee @ 10 % of Materials				21.38			
		Total Cost of 1 cum 1% Cess & 18% GST =	cum	1.28	167.03	5172.296			
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	397.00	35.73			
		Mason (1st class)	day	0.25	503.00	125.75			
		Mazdoor (Unskilled)	day	2.00	372.00	746.00			
		Cost for 7.5m = (a+b+c)				44311.71			
		A) Basic Cost per m = (a+b)/7.5	m			5908.23			
		Rate per m of Pipe				5908.23			
	(d)	CARRIAGE COST				5908.23			
		NP3 Pipe	m	7.5	298.37	2237.78			
		Carriage cost per m	m			2237.78			
		Rate per m with Carriage	m			298.37			
		Total per m	m			6,206.598			
		Labour Cess @ 1%				6,206.598			
		G.S.T. @ 18%				62.066			
		Total Cost of 1 mtr. 1% Cess & 18 % GST =				1,117.188			
	C.	600 MM DIA (Single Row)				7,385.852			
	a)	Material							
		RCC NP3 pipe including collar	m	7.50	2310.00	17325.00			
	b)	Labour							
		Mate	day	0.04	397.00	15.88			
		Mason (1st class)	day	0.12	503.00	60.36			
		Mazdoor (Unskilled)	day	0.96	372.00	358.08			
		Cost of 7.5m = (a+b+c+d)				17759.32			
		A) Basic Cost per m = (a+b)/7.5	m			2367.91			
		Rate per m of Pipe				2367.91			
		CARRIAGE COST							
		NP3 Pipe	m	7.5	124.35	932.63			
		Carriage cost of 7.5m				932.63			
		B) Carriage cost per m	m			124.35			
		Rate per m with Carriage	m			2,492.260			
		Total per m	m			2,492.260			
		Labour Cess @ 1%				24.923			
		G.S.T. @ 18%				448.607			
57.40.1		Total Cost of 1 mtr. 1% Cess & 18 % GST =				2,965.789			
		Labour for filling empty cement bags with local sand, stitching the bags and placing including supply of sacks etc. all complete as per approved design, specification and direction E/I.							

Unit = Per % Nos.					
(A) For Filling & Stacking					
Labour					
Skilled Labour for filling sand into bags and sewing	No.	2.00	472.00		944.00
Unskilled	kg	0.50	20.59		10.30
(B) Labour Rate For Carrying & Placing filled E.C. Bags.					
Labour					
Skilled Labour for Carrying filled bags and placing to work site	No.	3.00	472.00		1416.00
TOTAL =					2370.30
	Per % Nos. (B) =				2370.30
	Rate per bag (A+B) = /100		Soy.		2370.30
	(C) Cost of empty cement bag & cost of sand	cum			23.70
(D) Carriage cost					11.11
	Tractor with trolly	cum	0.034	345.14	11.73
Labour Cess @ 1%					46.55
G.S.T. @ 18%					0.465
Add Seigniorage Fee @ 10 % of Materials					8.379
Total Cost of 1 E.C. Bag 1% Cess & 18 % GST =	cum	0.034	144.75		0.49
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					55.882
5.79 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	531.00		66.38
Unskilled Labour	No.	0.25	373.00		93.25
Rate for 30.5 m					830.04
TOTAL =					830.04
Rate per mt					27.21
(iii) Carriage cost					
bamboo	mt	1	3.00		3
Total Cost with Carriage					30.21
Labour Cess @ 1%					0.302
G.S.T. @ 18%					5.439
Total Cost of 1 mtr. 1% Cess & 18 % GST =					35.955
5.77 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
(ii) Labour					
Carpenter Gr -II	No.	0.25	531.00		132.75
Unskilled Labour for piling	No.	2.50	373.00		932.5
Rate for 30.5 m					1681.66
Total					1681.66
Rate for 1 m					55.14
Carriage Cost of Bamboo	per mt.				3.00
Total Cost with Carriage					58.14
Labour Cess @ 1%					0.581
G.S.T. @ 18%					10.465
Total Cost of 1 mtr. 1% Cess & 18 % GST =					69.102

Labour for fitting and and fixing Steel Drum 300 mm dia 1.2 m high as per specification and direction					
(Assuming Per Mtr. = 3.14x0.30 = 0.942 mtr.)					
Area of Assuming in one Drum = 0.942x1.20 = 1.130 Sqm					
(One Sqm sheet Cost = 127.80/1.130 = 113.12 Cost					
Unit = per sqm					
Taking Out = 100 sqm					
Labour					
a					
Hammer man	No.	4.00			
Mason (Unskilled)	No.	4.00	531.00		2124.00
Carpenter 1st Class	No.	4.00	373.00		1492.00
Materials			503.00		2012.00
Nails	kg	5.00	170.13		5628.00
Steel Drum sheet	Nos	100.5	170.13		850.65
Rate Per m = (a+b+c)/100					15056.51
Labour Cess @ 1%					21536.160
G.S.T. @ 18%					215.352
Total Cost of 1 mtr. 1% Cess & 18 % GST =					2.154
Labour for fitting and and fixing split bamboo woven chochari in position with 20 swg G.I. wire of 75 mm to 100 mm long nails					38.763
Alternatively including cost of G.I. wire or nails complete job as per specification and direction of E/I.					256.268

(Assuming strip of 3.05x3.05 = 9.30 sqm					
Unit = per sqm					
Taking Out = 9.30 sqm					
Labour					
a					
Carpenter Gr -II	No.	1.00	531.00		531.00
Mason (Unskilled) for pilling	No.	1.00	373.00		373.00
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					2811.000
Labour Cess @ 1%					302.258
G.S.T. @ 18%					3.023
Total Cost of 1 mtr. 1% Cess & 18 % GST =					54.406
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. level 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	373.00		746.00
Skilled labour for stacking	nos	0.33	472.00		155.76
Unskilled labour for coring and placing	nos	4.00	373.00		1492.00
Mate	nos	0.25	397.00		99.25
Staching Machine	day	0.33	50.00		16.50
Trolley with trolley	day	1.00	676.00		676.00
Generator 3KVA	hrs	20.67	74.00		1529.58
Total					4715.09
Rate per bag (total/40) (A)					117.88
Charge for placing & dumping					
Unskilled labour for loading unloading & dumping	nos	16	373.00		6320.00
Mate	nos	1	397.00		419.00
Trolley with trolley	couch	4	676.00		2704.00
Total					9,443.000
Rate per bag (Total/256) (B)					36.887
Materials					
Cost of Geo Bag	each	1	124.00		124.00
Total cost (a+b+c)					278.764

Rate per bag						
Labour Cess @ 1%						270.764
Labour Cess @ 18%						2.708
G.S.T. @ 18%						50.178
Add Seigniorage Fee @ 10 % of Materials						1.01
Total Cost of 1 Geo Bag 1% Cess & 18 % GST =		cum	0.070	144.75		332.739
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 suit etc. and placing the filled 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) Labour Cost for filling bags in one Nylon crate in dry portion		No.	1	472.00		411.00
(ii) Labour Cost for filling bags in one Nylon crate in dry portion		No.	1	472.00		611.00
(i) Placing of filed N/C with 30 m lead in water portion						
Labour						
Male		No.	0.37	397.00		146.89
Labour (Skilled)		No.	1.00	472.00		472.00
Labour (Unskilled)		No.	1.00	373.00		373.00
Hence, Total Labour for 100 cfr						2013.89
Taking one E.C. Bags to contain 1.20 cfr. of sand						2013.89
Hence, Labour rate for placing one filed N.C.			356.49			356.49
(ii) Hence rate per mtr/cum crate on water portion (1+1)				5m.		967.49
Labour Cess @ 1%						9.675
G.S.T. @ 18%						174.148
Add Seigniorage Fee @ 10 % of Materials						0.49
Total Cost of 1 E.C. 1% Cess & 18 % GST =		cum	0.034	144.75		1,151.803
(i) 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						
Male		day	0.01	397.00		3.97
Mazdoor (Unskilled)		day	0.30	373.00		111.90
Material						
Sand (assuming 20 per cent voids)		cum	1.20	144.75		173.70
Overheads @ 6 % on (a)						17.37
CARRIAGE COST						306.94
sand		Cum	1.2	345.14		414.17
Rate per cum = a+b+c						721.11
G.S.T. @ 18%						7.21
Add Seigniorage Fee @ 10 % of Materials						129.80
Total Cost of 1 E.C. 1% Cess & 18 % GST =						1272.78