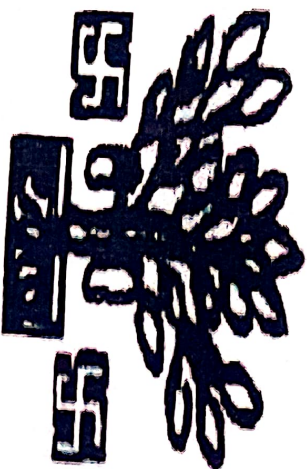


RURAL WORKS DEPARTMENT GOVT OF BIHAR



NAME OF WORKS :-

Turkeili Uda M.D.R to Kalkali Madhya Vidyalaya
Tatma Tola

BLOCK :-

Jokihat

FDR

Phase-I

20,35,352

YEAR(2024-25)

R.W.D., WORKS CIRCLE, KISHANGANJ

R.W.D., WORKS DIVISION, ARARIA

प्रतिवेदन

Turkeli Uda M.D.R to Kalkali Madhya Vidalaya Tatma Tola

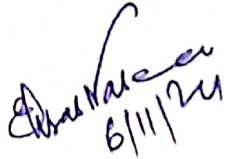
पथ का नाम :-

कार्य का नाम :-

Turkeli Uda M.D.R to Kalkali Madhya Vidalaya Tatma Tola

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

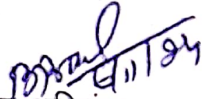
संलग्न प्राक्कलन 2024 को प्रखण्ड में आयी भीषण बाढ़ से क्षतिग्रस्त पथ
में बाढ़ क्षतिग्रस्त मरम्मति मद से यातायात चालू करने हेतु तैयार किया गया है जिसकी
प्राक्कलित लागत 2035752 (Twenty lakhs twenty-five thousand two hundred
का निर्माण MMGSY योनान्तर्गत हुआ है एवं योजना अनुरक्षण अवधि में 50 है।
पथ के कटे (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।


6/11/24

कनीय अभियंता,

ग्रामीण कार्य विभाग,

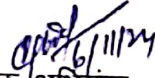
कार्य प्रशाखा, जालंधर-01


6/11/24

सहायक अभियंता,

ग्रामीण कार्य विभाग,

कार्य अवर प्रमण्डल,।


6/11/24

कार्यपालक अभियंता,

ग्रामीण कार्य विभाग,

कार्य प्रमण्डल,

SUMMARY OF COST ESTIMATE FOR THE PROJECT		
NAME OF ROAD :-	Turkeli Uda M.D.R to Kalkali Madhya Vidyalaya Talma To'	
DISTRICT :-	ARARIA	
BLOCK :-	Jokihat	
Length of Road:-	0.00KM	
Length of Cutting in mtr :-	90.000	
Sl. No.	DESCRIPTION	AMOUNT (LAKHS)
1	Filling of local sand	951937.62
2	Labour for cutting 62mm to 75mm dia bamboo	95736.13
3	Labour for fitting 62mm to 75mm dia bamboo	12312.88
4	Labour for filling empty cement bags with local sand Nylon crate	0.00
5	Supplying of EC bag of local sand	331647.80
6	Supply and Carriage of brick bats	628718.00
7	Supply, laying and carriage of 1000 mm HPC	0.00
8	Drone Videography Charj Three times	15000.00
	SUB TOTAL COST =	2035352.42
	TOTAL (RS.) =	20,35,352

JE *[Signature]*
6/11/24

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

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

S.E

Technically ~~Reviewed~~ ^{approved} for ₹ 20,35,352.00
(Twenty Lakhs Thirty-five thousand Three hundred Fifty-two) only

[Signature]
Superintending Engineer
RWD Work Circle
Kishanganj

Bill of Quantity

NAME OF ROAD :-		Turkeli Uda M.D.R to Kalkali Madhya Vidhalaya Talma Tola			
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	747.92	CUM	1272.78	951937.62
2	Construction of embankment with approved materials obtained from excavation for road way in soil using manual means for carrying of cut earth to embankment site 1.5 mt and lead upto 50 m, graded and compacted to meet requirement of table 300.1, 300.2 with lift up to	0.00	CUM	549.74	0.00
3	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.	1383.75	MTR	69.19	95736.13
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 as per specification & direction of Engineer-in-charge.	342.50	MTR	35.95	12312.88
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 suti 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.	5935.00	Each	55.88	331647.80
7	Supply and Carriage of brick bats upto 8 km breach and placing in breaches and lying of bats, all complete job.	227.87	CUM	2759.12	628718.00
8	Supplying and carriage of hume pipe 1000 mm dia , all complete job.	0.00	RM	5172.30	0.00
A) SUB TOTAL =					2020352.42

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

NAME OF ROAD :-		Turkeli Uda M.D.R to Kalkali Madhya Vidalaya Tatma Tola							
DISTRICT :-		ARARIA							
BLOCK :-		Jokihat							
Length of Cutting:-		90.00 mtr							
Sl. No.	DESCRIPTION OF ITEMS	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:-0.050 km	cum	1	20.00	$(6.5+5.25+5.25)/3$	$(3.5+2.85+2.25)/3$	324.89		
	At ch:-0.080 km	cum	1	8.00	$(5.5+5.25+5.25)/3$	$(2.25+3.5+1.05)/3$	96.71		
	At ch:-2.250 km	cum	1	9.50	$(6.5+5.25+5.25)/3$	$(2.5+3.85+1.75)/3$	145.35		
	At ch:-2.250 km	cum	2	7.00	$(2.5+3.5)/2$	$(3.5+1.85+1.75)/3$	99.40		
	At ch:-2.150 km	cum	1	12.00	$(1.5+1.5)/2$	$(1.85+2.85+0.65)/3$	32.10		
	At ch:-1.800 km	cum	1	13.50	$(3+4.5)/2$	$(2.5+1.25+1.85)/3$	94.50		
	Deduction for H.P 1000MM dia (1.23 x 1.23) = 1.52	cum	5	0.79	1.52	7.50	45.03		
		cum	total qty :-				747.920	1,272.79	951937.62
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:-0.050 km		1	80.00	4.50		360.00		
	At ch:-2.250 km		1	30.00	4.50		135.00		
	At ch:-2.250 km		2	35.00	4.50		315.00		
	At ch:-2.150 km		1	60.00	4.50		270.00		
	At ch:-1.800 km		1	67.50	4.50		303.75		
		Mtr.	total qty:-				1383.75	69.19	95,736.13

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.								
	At ch:-0.050 km		1	20.00	5.00		100.00		
	At ch:-2.250 km		1	9.00	5.00		45.00		
	At ch:-2.250 km		2	7.00	5.00		70.00		
	At ch:-2.150 km		1	12.00	5.00		60.00		
	At ch:-1.800 km		1	13.50	5.00		67.50		
		Mtr.	total qty :-				342.50	35.95	12312.88
4	Supplying of EC bag, filling of local sand stitching and placing in position as the direction of Engineer-in-charge.								
	At ch:-0.050 km	cum	1	20.00	1.42	2.53	71.78		
	At ch:-2.250 km	cum	1	9.00	1.50	1.53	20.70		
	At ch:-2.250 km	cum	2	7.00	1.50	1.13	23.80		
	At ch:-2.150 km	cum	1	12.00	1.42	2.37	40.23		
	At ch:-1.800 km	cum	1	13.50	1.42	2.37	45.26		
	Total No of E C Bags(0.034cum=100Bags)		201.77	/	0.034	5935.00			
		Each	Say No of Bage :-				5935.00	55.88	331647.800
5	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:-23500 m	cum	0	20.00	4.50	2.73	0.00		
	(0.07m3=1 no. of Geo Bags)		0.00	/	0.07	0.00			
		Each					0.00	332.74	0.000

6	Supply and Carriage of brick bats upto 8 km breach and placing in breaches and lying of bats, all complete job.							
	At ch:-0.050 km	cum	1	20.00	5.67	0.42	47.22	
	At ch:-0.080 km	cum	1	8.00	5.33	0.78	33.42	
	At ch:-2.250 km	cum	2	9.50	5.67	0.55	59.22	
	At ch:-2.250 km	cum	1	12.00	1.50	0.68	12.30	
	At ch:-2.150 km	cum	1	13.50	1.50	0.55	11.14	
	At ch:-0.600 km	cum	1	15.00	3.75	0.68	38.44	
	At ch:-0.600 km	cum	1	8.00	4.00	0.82	26.13	
		cum	total qty :-				227.87	2,759.12 628718.00
							A) SUB TOTAL =	2020352.42
							TOTAL COST =	2020352.42

[Signature]
6/11/24
Junior Engineer

[Signature]
6/11/24
Asstt. Engineer

[Signature]
6/11/24
Executive Engineer

S.E
KISHANGANJ

FINAL RATE UNDER WORKS CIRCLE KISHANGANJI

S.No	Description of Item	Unit	Final Rate (Excluding GST, Solumforage & L.Coss)	Final Rate (Including GST, Solumforage & L.Coss)	S.F. Per Cum / Per Bag
1	EARTH WORK	CUM	459.003	649.746	3.530
2	BRICK BAT	CUM	2209.576	2759.115	129.726
3	G.S.B	CUM	4328.501	5172.300	21.380
4	SAND BAG (Cement Bag)	Each	46.550	55.880	0.450
5	BAMBOO PILE	Per Mtr.	56.140	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 Sq.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 Kishanganji

BASIC RATES (All labour)

No.	Description of Labour	Unit	Rate (Rs.)
1-01	Labour	day	373
1-02	Shoemaker (Shoemaker skilled)	day	392
1-03	Blacksmith (special)	day	503
1-04	Blacksmith (2nd class)	day	619
1-05	Blacksmith (1st class)	day	503
1-06	Wagon operator (semi-skilled)	day	449
1-07	Wagon operator (skilled)	day	577
1-08	Wagon operator (skilled)	day	472
1-09	Wagon operator (2nd class)	day	449
1-10	Wagon operator (skilled)	day	476
1-11	Wagon operator (skilled)	day	511
1-12	Wagon operator (1st class)	day	503
1-13	Wagon operator (2nd class)	day	449
1-14	Wagon operator (skilled)	day	397
1-15	Wagon operator (skilled)	day	373
1-16	Wagon operator (skilled)	day	388
1-17	Wagon operator (skilled)	day	472
1-18	Wagon operator (skilled)	day	476
1-19	Wagon operator (skilled)	day	476
1-20	Wagon operator (skilled)	day	454
1-21	Wagon operator (skilled)	day	476
1-22	Wagon operator (skilled)	day	531
1-23	Wagon operator (skilled)	day	584
1-24	Wagon operator (skilled)	day	531
1-25	Wagon operator (skilled)	day	415

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

**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	1065.00	18.00	1081.00
M-008	Selected earth (including 'a' Rs. 33.00 per cum & compensation 'q' 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, kanhar, 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.R.	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.*

BASIC RATES **CONSUME RATES OF PLANT & MACHINERY**

S. No	M/C Code	Description of		Output of Machine		Usage Rates in Ru	
		Machine	Activity	Unit	Output	Unit	Rate
PA40012	PA40012	Core separator	Grading of muck road	cum h	200.00	per hour	5,373.00
PA40013	PA40013	PA40013 (130 - 40) Tractor (130 - 40)	Grading	cum h	200.00	per hour	5,373.00
PA40014	PA40014	Front end loader 1 cum bucket capacity of 15 cum bucket	Loading Aggregate	cum h	45.00	per hour	1,419.00
PA40015	PA40015	Hydraulic excavator of 1 cum bucket	Excavation	cum h	100.00	per hour	2,272.00
PA40016	PA40016	Three wheel motor (10) LX Motor Roller	Compaction Rolling	cum h			1,593.00
PA40017	PA40017		Earth - 1 subgrade or sub-grade	cum h	80.70		1,593.00
PA40018	PA40018		Sub-base (1-1)	cum h	10.00		1,593.00
PA40019	PA40019		Sub-base (1-1)	cum h	8.00		1,593.00
PA40020	PA40020		Sub-base (1-1)	cum h	16.00		1,593.00
PA40021	PA40021		Sub-base (1-1)	cum h	10.00		1,593.00
PA40022	PA40022	Tractor 5.5 cum 101	Grading	cum h	12.00		1,593.00
PA40023	PA40023	Tractor 5.5 cum 101	Grading	cum h	250.00		1,593.00
PA40024	PA40024	Tractor 5.5 cum 101	Grading	cum h	300.00		1,593.00
PA40025	PA40025	Tractor 5.5 cum 101	Grading	cum h	400.00		1,593.00
PA40026	PA40026	Tractor 5.5 cum 101	Grading	cum h	500.00		1,593.00
PA40027	PA40027	Tractor 5.5 cum 101	Grading	cum h	500.00		1,593.00
PA40028	PA40028	Tractor 5.5 cum 101	Grading	cum h	500.00		1,593.00
PA40029	PA40029	Tractor 5.5 cum 101	Grading	cum h	500.00		1,593.00
PA40030	PA40030	Tractor 5.5 cum 101	Grading	cum h	500.00		1,593.00
PA40031	PA40031	Tractor 5.5 cum 101	Grading	cum h	500.00		1,593.00
PA40032	PA40032	Tractor 5.5 cum 101	Grading	cum h	500.00		1,593.00
PA40033	PA40033	Tractor 5.5 cum 101	Grading	cum h	500.00		1,593.00
PA40034	PA40034	Tractor 5.5 cum 101	Grading	cum h	500.00		1,593.00
PA40035	PA40035	Tractor 5.5 cum 101	Grading	cum h	500.00		1,593.00
PA40036	PA40036	Tractor 5.5 cum 101	Grading	cum h	500.00		1,593.00
PA40037	PA40037	Tractor 5.5 cum 101	Grading	cum h	500.00		1,593.00
PA40038	PA40038	Tractor 5.5 cum 101	Grading	cum h	500.00		1,593.00
PA40039	PA40039	Tractor 5.5 cum 101	Grading	cum h	500.00		1,593.00
PA40040	PA40040	Tractor 5.5 cum 101	Grading	cum h	500.00		1,593.00
PA40041	PA40041	Tractor 5.5 cum 101	Grading	cum h	500.00		1,593.00
PA40042	PA40042	Tractor 5.5 cum 101	Grading	cum h	500.00		1,593.00
PA40043	PA40043	Tractor 5.5 cum 101	Grading	cum h	500.00		1,593.00
PA40044	PA40044	Tractor 5.5 cum 101	Grading	cum h	500.00		1,593.00
PA40045	PA40045	Tractor 5.5 cum 101	Grading	cum h	500.00		1,593.00
PA40046	PA40046	Tractor 5.5 cum 101	Grading	cum h	500.00		1,593.00
PA40047	PA40047	Tractor 5.5 cum 101	Grading	cum h	500.00		1,593.00
PA40048	PA40048	Tractor 5.5 cum 101	Grading	cum h	500.00		1,593.00
PA40049	PA40049	Tractor 5.5 cum 101	Grading	cum h	500.00		1,593.00
PA40050	PA40050	Tractor 5.5 cum 101	Grading	cum h	500.00		1,593.00
PA40051	PA40051	Tractor 5.5 cum 101	Grading	cum h	500.00		1,593.00
PA40052	PA40052	Tractor 5.5 cum 101	Grading	cum h	500.00		1,593.00
PA40053	PA40053	Tractor 5.5 cum 101	Grading	cum h	500.00		1,593.00
PA40054	PA40054	Tractor 5.5 cum 101	Grading	cum h	500.00		1,593.00
PA40055	PA40055	Tractor 5.5 cum 101	Grading	cum h	500.00		1,593.00
PA40056	PA40056	Tractor 5.5 cum 101	Grading	cum h	500.00		1,593.00
PA40057	PA40057	Tractor 5.5 cum 101	Grading	cum h	500.00		1,593.00
PA40058	PA40058	Tractor 5.5 cum 101	Grading	cum h	500.00		1,593.00
PA40059	PA40059	Tractor 5.5 cum 101	Grading	cum h	500.00		1,593.00
PA40060	PA40060	Tractor 5.5 cum 101	Grading	cum h	500.00		1,593.00
PA40061	PA40061	Tractor 5.5 cum 101	Grading	cum h	500.00		1,593.00
PA40062	PA40062	Tractor 5.5 cum 101	Grading	cum h	500.00		1,593.00
PA40063	PA40063	Tractor 5.5 cum 101	Grading	cum h	500.00		1,593.00
PA40064	PA40064	Tractor 5.5 cum 101	Grading	cum h	500.00		1,593.00

(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

Sl	No	Item	Unit	Source	Pukka / Surface		Carriage Cost & Lead in Km		Load ng & Road	Carriage by Total
	1	By Tractor							Unloa	
	A	Earth Work	Cum	Local	2.04	x 20.04	= Rs 0.00	3.60	219.18	274.42
					3.60					
	B	Brick Bat Via	Cum	Local	2.04	x 20.04	= Rs 247.55	3.60	219.18	521.97
					3.60					
	B	Bamboo Via	pet mtr.	Local	3.60	x 20.04	= Rs 1.15	3.60	0.96	3.00
					126.00					
	D	Local Sand Via	Cum	Local	2.04	x 20.04	= Rs 70.73	3.60	219.18	345.14
					3.60					
	2	By Tipper								
	A	GSB Via Road	Cum	Sihguri	8.00	x 9.83	= Rs 2789.43	8.00	170.70	2960.13
					4.99					
	3	By Truck								
					8.00					
	A	Hume Pipe (1000 mm) Via Rod	Mtr.	purnea	10.00	x 7.27	= Rs 308.25	8.00	437.68	745.93
					8.00					
	A1	Rate Per Mtr. Pipe	Mtr.	purnea					298.37	298.37
	B	Hume Pipe (600 mm) Via Road	Mtr.	purnea	25.00	x 7.27	= Rs 123.30	8.00	187.58	310.88
					25.00					
	B1	Rate Per Mtr. Pipe	Mtr.	purnea					124.35	124.35

Cost of Haulage Excluding Loading & Unloading as per SO¹ Subjected to Verification of Lead

Asstt. Engineer
R.W.D. Works Sub - Division,
6/11/24

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

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

SDB SL No.	WORD Ref No.	DESCRIPTION	Unit	QTY	Rate	Amount in Rs
4.4		Carriage Of Material (By Tractor)				
		Loading and unloading of stone Boulder / stone aggregates sand / boulder / monsoon				
		Placing tractor at loading point loading with front end loader dumping turning for return trip excluding time for haulage and start trip				
		Unit = cum				
		Taking output = 2.25 cum				
		Time required for				
	ii)	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				
		Man	hour	0.100	297.00	29.70
		Boy	hour	0.200	172.00	34.40
	b)	Machinery				
		Tractor 3.50 Tonnes Capacity	hour	0.100	675.00	67.50
		Front end loader 1 cum bucket capacity @ 25 Cum/hour	hour	0.043	1,453.00	117.77
		Cost for 2.25 cum = a+b+c				442.85
		Rate per cum = (a+b+c)/2.25	cum			207.044
		Total per cum				207.044
1.10		Haulage excluding Loading & Unloading				
		Haulage of materials by truck excluding cost of loading, unloading and unloading				
		Unit = 7km				
		Taking output 1 ft load and load 10km = 362 km				
		Case-1: Surfaced Road				
		Speed with load : 15km per hour				
		Speed while returning empty : 25km per hour				
	a)	Machinery				
		Tractor 3.6 tonnes Capacity	hour	0.567	475.00	450.27
		Haulage with load	hour	0.400	675.00	270.00
		Empty return trip				72.29
		Cost for 362/km = a+b+c				210.040
		Cost for 1 t/km = a+b/36				210.040
		Total per t per km				210.040
		Case - II Kutcha Track and Track in River Bed / Nallah Bed and Choke Bed				
		Speed with load : 10km per hour				
		Speed while returning empty : 15km per hour				
	a)	Machinery				
		Tractor 3.6 tonnes Capacity	hour	2.00	675.00	675.00
		Haulage with load	hour	0.667	675.00	450.00
		Empty return trip				312.89
		Cost for 266/km = a+b+c				341.300
		Cost for 1 t/km = a+b/36				341.300
		Total per t per km				341.300
1.1		Carriage Of Material (By Tipper)				
		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 load upto 30m				
		Unit = cum				
		Taking output = 5.3 cum				
		Time required for				
	(i)	Position of tipper at loading point	1 Min			
	(ii)	loading by front end loader 1 cum bucket capacity @25	12 Min			
	(iii)	maneuvering, reversing, dumping and turning for return	2 Min			
	(iv)	Waiting time unforeseen contingencies etc.	4 Min			
		Total	20 Min			
	b)	Machinery				
		Tipper 5.5 Tonnes Capacity	hour	0.120	1,424.00	476.58
		Front end loader 1 cum bucket capacity @ 25 Cum/hour	hour	0.130	1,418.00	468.77
		Cost for 5.3 cum = a+b+c				945.35

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[illegible]

This image shows a blank, aged, cream-colored page, likely an endpaper or flyleaf from an old book. The paper has a slightly textured appearance with some faint horizontal lines and minor discoloration or foxing, characteristic of old paper. There is no text or other markings on the page.

	Rate per pipe = (a+b+c)/9	per p			264.594
	Total per pipe				264.594
C	600/450 mm dia Hume pipe				
	Unit = per pipe				
	Taking output = 21 pipe				
a)	Labour				
	Mate				
	Mazdoor (Unskilled)	day	0.02	397.00	7.94
b)	Machinery	day	0.50	373.00	106.50
	Tractor 3 to 5 Tonnes Capacity				
	Crane	hour	0.11	1054.00	147.02
	Cost for 21 pipes = a+b+c+d	hour	0.11	5573.00	1619.09
	Rate per pipe = (a+b+c)/21				2401.35
	Total per pipe	per p			113.390
(iii)	Unloading of RCC Hume pipe by Mechanical means including a load upto 30 m				113.390
A	1000/1200 mm dia RCC Hume pipes				
	Unit = per pipe				
	Taking output = 9 pipes				
a)	Labour				
	Mate				
	Mazdoor (Unskilled)	day	0.02	397.00	7.94
b)	Machinery	day	0.50	373.00	106.50
	Truck				
	Crane	hour	0.20	1054.00	210.80
	Cost for 9 pipes = a+b+c+d	hour	0.20	5573.00	1114.60
	Rate per pipe = (a+b+c)/9				1519.84
	Total per pipe	per p			160.071
C	600/450 mm dia Hume pipe				160.071
	Unit = per pipe				
	Taking output = 21 pipes				
a)	Labour				
	Mate				
	Mazdoor (Unskilled)	day	0.020	397.00	7.94
b)	Machinery	day	0.50	373.00	186.50
	Truck				
	Crane	hour	0.20	1054.00	210.80
	Cost for 21 pipes = a+b+c+d	hour	0.20	5573.00	1114.60
	Rate per pipe = (a+b+c)/21				1519.84
	Total per pipe	per p			72.373
1.9	Loading & unloading of Bamboo				72.373
	Unit = per metre				
	Taking output = per mt.				
a)	Material				
	Bamboo = 2016/300	per pipe			6.72
	Bamboo Per Mt.	per mt			0.96
	Total per m				0.960
4	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	397.00	7.94
	Mazdoor (Unskilled)	day	0.50	373.00	186.50
b)	Machinery				
	Dumper 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
	Three Wheel 80-100 kw Static Roller	hour	1.25	1593.00	1,991.25
c)	Material				
	Water	kl	12.00	60.30	723.60
	Cost for 100 cum = a+b+c+d				5807.29

Unit = Per % Nos.					
(A) For Filling & Stitching & Stacking					
	Labour				
	Skilled Labour for filling sand into bags and sewing				
	Unskilled	No.	2.00	472.00	944.00
(ii)	Labour Rate For Carrying & Placing filled E.C. Bags.	kg	0.50	20.59	10.30
	Labour				
	Skilled Labour for carrying filled bags and placing to work site	No.	3.00	472.00	1416.00
	TOTAL =				2370.30
	$\text{Per \% Nos. (B)} = \frac{\text{Rate per bag } (A+B) \times 100}{(C) \text{ Cost of empty cement bag \& cost of sand}}$			Say,	2370.30
(iii)	Carriage cost	each			23.70
	Tractor with trolley	cum	0.034	345.14	11.73
	$(G) \text{ Total} = (A+B+C+D) =$				46.55
	G.S.T. @ 18%				8.379
	Add Selpincharge Fee @ 10 % of Materials				0.49
	Total Cost of 1 E.C. Bag 1% Cess & 18% GST =	cum	0.034	144.75	55.882
	Supply Labour for lifting and fixing 62 mm to 75 mm dia bamboo runners in position at every verticle pile with 150 mm long nails or 48 swg G.I wire including cost of G.I or nails complete job as per specification and direction				
	Unit = Per mt				
	Faking 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	No.	0.125	531.00	66.38
	Carpenter Gr. II	No.	0.25	373.00	93.25
	Unskilled Labour				830.04
	Rate for 30.5 m				830.04
	TOTAL =				27.21
	Rate per mt				
(iii)	Carriage cost	mt	1	3.00	3
	bamboo				30.21
	Total Cost with Carriage				0.302
	Labour Cess @ 1%				5.439
	G.S.T. @ 18%				35.955
	Total Cost of 1 mtr. 1% Cess & 18% GST =				
	Labour for cutting 62 mm to 75 mm dia bamboo piles in size and making shoes and drawing etc. complete bob as per specification and direction E/I				
	Unit = Per mt.				
	Faking Out Put = 30.50 m				
	Assuming				
	20 no pile sunk 1.5x2.5 m deeps				
	Total depth sunk 30.50 m				
(i)	Materials	m	30.50	20.21	616.41
	Bamboo				
(ii)	Labour	No.	0.25	531.00	132.75
	Carpenter Gr. II	No.	2.50	373.00	932.5
	Unskilled Labour for piling				1681.66
	Rate for 30.5 m				1681.66
	Total				55.14
	Rate for 1 m	per mtr.			3.00
	Carriage Cost of Bamboo				58.14
	Total Cost with Carriage				0.501
	Labour Cess @ 1%				10.465
	G.S.T. @ 18%				69.182
	Total Cost of 1 mtr. 1% Cess & 18% GST =				

6	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)									
		Carpenter 1st Class									
	b	Materials	No.	4.00	531.00	2124.00					
		Nails	No.	4.00	373.00	1492.00					
		Steel Drum sheet	No.	4.00	503.00	2012.00					
		Rate Per m = $(a+b+c)/100$	kg	5.00	170.13	5628.00					
		Labour Cess @ 1%	Nos.	00.5	170.13	850.65					
		G.S.T. @ 18%				15056.51					
		Total Cost of 1 mtr. 1% Cess & 18 % GST =				21535.160					
5.7.8		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.				215352					
						2.154					
						38.763					
						256.268					
		(Assuming strip of $3.05 \times 3.05 = 9.30$ sqm Unit = per sqm Taking Out = 9.30 sqm									
	a	Labour									
		Carpenter Gr -II									
		Mazdoor (Unskilled) for pilling									
	b	Materials	No.	1.00	531.00	531.00					
		Bamboo	No.	1.00	373.00	373.00					
		Nails	Mtr.	10.00	188.00	1880.00					
		Rate Per m = $(a+b+c)/9.30$	kg	0.25	108.00	27.00					
		Labour Cess @ 1%				2811.000					
		G.S.T. @ 18%				302.258					
		Total Cost of 1 mtr. 1% Cess & 18 % GST =				54.406					
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.				359.687					
		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					
		Unskildt labour for carring and placing	nos	4.00	373.00	1492.00					
		Mate	nos	0.25	397.00	99.25					
		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				4715.09					
		Rate per bag (total/40) (A)				117.88					
(ii)		charge for placing & dumping									
		unskilled labour for loading unloading & dumping	nos	16	373.00	6320.00					
		Mate	nos	1	397.00	419.00					
		Tractor with trolley	each	4	676.00	2704.00					
		Total				9,413.000					
		Rate per bag (Total/256) (B)				36.887					
		Matrolals									
		cost of Geo Bag	each	1	124.00	124.00					
		Total cost (a+b+c)				278.764					

Rate per bag		Labour Cess @ 1%		G.S.T. @ 18%		Add Seigniorage Fee @ 10 % of Materials		Total Cost of 1 Geo Bag 1% Cess & 18 % GST =	
		cum		0.070		144.75		101	
of 150 m including supply of suit etc. and placing the filled crates in water portion without lead 30 m or complete or per approved design, specification and direction of E/I								270.764	
Unit = Each N.C.								2.700	
								50.178	
								1.01	
								111.739	
(i) Labour Cost for filling bags in one Nylon crate in dry portion		No		1		471.00		411.00	
(ii) Placing of filled N/C with 30 m lead in water portion		No		1		471.00		611.00	
Labour		No		0.32		807.00		146.82	
Mate		No		1.00		471.00		471.00	
Labour (Skilled)		No		1.00		371.00		171.00	
Labour (Unskilled)		No		1.00		371.00		201.89	
Hence, Total Labour for 100 C/L									
Taking one E.C. Bags to contain 1.20 C/L. Of sand									
Hence, labour rate for placing one filled N.C.									
Hence rate per mupin crate on water portion (I+II)				356.49					
Labour Cess @ 1%						50y.		176.49	
G.S.T. @ 18%								947.49	
Add Seigniorage Fee @ 10 % of Materials								9.675	
Total Cost of 1 E.C.1% Cess & 18 % GST =		cum		0.034		144.75		174.148	
(1) 800								0.49	
								1151.803	
I. Sand filling									
Unit = cum									
a) Labour									
Mate		day		0.01		397.00		3.97	
Mazdoor (Unskilled)		day		0.30		373.00		111.90	
b) Material									
Sand (assuming 20 per cent voids)		cum		1.20		144.75		174.70	
Overheads @ 6 % on (a)								17.37	
CARRIAGE COST								306.94	
sand		Cum		1.2		345.14		414.17	
Rate per cum = a+b+c								724.11	
Total Cost including 1 % LABOUR CESS								7.21	
G.S.T. @ 18%								129.80	
Add Seigniorage Fee @ 10 % of Materials								0.49	
Total Cost of 1 E.C.1% Cess & 18 % GST =								1272.78	