



ग्रामीण कार्य विभाग

Rural Works Department, Govt of Bihar

Flood Damage Restoration Work

NAME OF WORK :- RESTORATION OF FLOOD DAMAGE PORTION OF
T05 TO BARADIH

Block :- Nokha

Estimated Cost. :- 289027 Lakh
~~286554.00~~

[Signature]
02/11/21

Executive Engineer
RWD Works Division, Sasaram-2

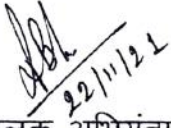
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जाँच प्रतिवेदन

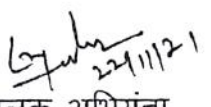
अधीक्षण अभियंता, ग्रामीण कार्य विभाग, कार्य अंचल, सासाराम के कार्यालय आदेश संख्या-815 दिनांक 16.11.2021 के आलोक में कार्य प्रमंडल, सासाराम-2 के अन्तर्गत बाढ़/अतिवृष्टि से क्षतिग्रस्त निम्नलिखित पथों की जाँच की गई।

क्र० सं०	प्रखंड	पथ का नाम	पथ के क्षतिग्रस्त भाग की लम्बाई (मीटर) में	राशि (लाख में)	अभ्युक्ति
1	2	3	4	5	6
1	Karakat	Dhawani to Karma via Titho	6	0.84468	
2	Karakat	Karup to Bhopatpur via Nawada Itarhiya Road	11	2.88681	
3	Nasriganj	Jalalpur Sawari Road to Khiriyan	20	1.87600	
4	Nokha	T05 to Baradih	32	2.89027	

उपरोक्त पथों के Temporary Restoration का प्राक्कलन की जाँच असंबद्ध कार्यपालक अभियंता, ग्रामीण कार्य विभाग, कार्य प्रमंडल, बिक्रमगंज के द्वारा किया गया। Temporary Restoration के प्राक्कलन को कार्य के अनुरूप पाया गया।


कार्यपालक अभियंता

ग्रामीण कार्य विभाग, कार्य प्रमंडल
सासाराम-2


कार्यपालक अभियंता

ग्रामीण कार्य विभाग, कार्य प्रमंडल
बिक्रमगंज

तकनीकी प्रतिवेदन

का नाम

:-टी05 से वाराडीह पथ में बाढ़ से क्षतिग्रस्त भाग में Restoration कार्य

2.89027

प्राक्कलित राशि

:- 2.86554 लाख

2.89027

यह प्राक्कलन जिसकी प्राक्कलित राशि 2.86554 लाख रुपये का है जो टी05 से वाराडीह पथ में यातायात चालु रखने हेतु Restoration कार्य तैयार किया गया है। अतिवृष्टि के कारण पथ में 32 मीटर की लम्बाई में कटाव हो गया था। जिसमें बास बल्ली लगाकर खाली सिमेन्ट बोरी में बालु भरकर नीचे भाग में मिट्टी डालकर Brick Bats का कार्य कराया गया है जिससे यातायात चालु हो गया है।

इस कार्य का प्राक्कलन तैयारकर घटनोत्तर स्वीकृति हेतु समर्पित किया जा रहा है। प्राक्कलन के मदों का दर वर्तमान अनुसूची दर पर तैयार किया गया है।


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कनीय अभियंता
ग्रामीण कार्य विभाग.
कार्य प्रमंडल, सासाराम-2


2.11.21

सहायक अभियंता
ग्रामीण कार्य विभाग.
कार्य प्रमंडल, सासाराम-2


2.11.21

कार्यपालक अभियंता
ग्रामीण कार्य विभाग.
कार्यप्रमंडल, सासाराम-2

**ABSTRACT OF COST FOR RESTORATION OF FLOOD DAMAGE PORTION OF
T05 TO BARADIH**

Items of Works	Quantity	Unit	Rate	Amount
Labour for cutting 62mm to 75mm dia sat bamboo piles to size and making shoes and driving etc.complete job as per specification and direction of E/I.	81.6	m	30.3	2472.48
labour for fitting and fixing 62mm to 75 mm dia bamboo runners in portion at every vertical pile with 150 mm long nails or 38 swg G.I. wire including cost G.I wire of nails completeas per specification and direction of E/I.	120	m	5.4	648.00
Supply of bamboo 75mm dia 6m to 7m long	37	Nos	141.5	5235.50
labour for filling empty cement begs with local sand stitching the bags and placing including supply of sutli etc.all complete and direction of E/I.	2559	% Nos	1661.7	42522.903
Supply of empty cement bages	2559	Nos	2.92	7472.28
Providing and laying spreading of Brick Bats etc.do all complete job.	64.8	m ³	2602.7	168654.96
Earth work in bed clearance or filling in Road embankment all lead and lift all complete as per specification of E/I.	99	m ³	290.6	28769.40
GST @12%				30693.00
LWC @1%				2558.00
				286554.04

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Assistant Engineer
Nokha

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Executive Engineer
RWD Works Division, Sasaram-2

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DETAILED ESTIMATE FOR RESTORATION OF FLOOD DAMAGE PORTION OF T05 TO BARADIH

SL. No	Items of Works	
1	Labour for cutting 62mm to 75mm dia sal bamboo piles to size and making shoes and driving etc. complete job as per specification and direction of E/I.	$15/0.45+1=34.00$ Nos $34\text{nos} \times 2\text{row} \times 1.20 = 81.60$ m
2	labour for fitting and fixing 62mm to 75 mm dia bamboo runners in portion at every vertical pile with 150 mm long nails or 38 swg G.I. wire including cost G.I wire of nails complete as per specification and direction of E/I.	$2 \times 4 \text{ rows} \times 15.00 = 120\text{m}$
3	Supply of bamboo 75mm dia 6m to 7m long	for piles $2 \times 34 \text{ nos} \times 2.40 = 163.20\text{m}$ for runners $120/2 = 60.00$ 223.20 m no of bamboo $223.20/6 = 37.00$ nos
4	labour for filling empty cement bages with local sand stitching the bags and placing including supply of sutli etc. all complete and direction of E/I.	$2 \times 1/2(2+0.9) \times 2 \times 15/0.034 = 2559$ nos
5	Supply of empty cement bages	2559
6	Earth work in bed clearance or desilting of canal having full supply discharge between of 28 cumecs (1000 cusecs) and 8.5 cumecs (300 cusecs) including rough dressing with all lead and lift all complete as per specification of E/I.	in bed $2 \times 15 \times 2 \times 0.45 = 27.00\text{m}^3$ Top $32 \times 5 \times 0.45 = 72.00\text{m}^3$ 99.00m ³
7	Providing and laying spreading of Brick Bats etc. do all complete job.	$32 \times 4.5 \times 0.45 = 64.80\text{m}^3$

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Junior Engineer
Nokha

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Assistant Engineer
Nokha

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Executive Engineer
RWD Works Division, Sasaram-2

5.7.7	Labour for cutting 62 mm to 75 mm dia bamboo piles to size and making shoes and driving etc. complete job as per specification and direction of E/I.	Unit :- Per M					
		Taking Out put = 30.50M					
	(Assuming 20 nos. pile sunk 1.525 mtr deep)						
	Total depth sunk 30.50 meter						
	Labour						
	Carpenter Gr II	0.25	nos	345.00	86.25	{SI-17}	
	Unskilled mazdoor for piling	2.5	nos	287.00	717.50	{SI-1}	
	Add Overhead charge & C.P@15%				803.75		
					120.56		
					924.31		
5.7.8	Rate per M					30.31	
	Labour for cutting and driving etc. complete job as per specification and direction of E/I.					Per M	


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5.7.40.1	Labour for filling empty cement bags with local sand, stitching the bags and placing including supply of sutli etc. all complete as per approved design, specifications and direction of E/I	Unit :- Per % nos						
		Taking Out put = 100 nos						
	(a) For filling & stitching & stacking							
	Unskilled mazdoor for filling sand into bags and sewing	2	nos	287.00	574.00	{S		
	Sutali	0.5	Kg	19.75	9.88	(MS		
					583.88			
	Add Overhead charge & C.P@15%				87.58			
					671.46			
	Rate per % nos	Say Rs		671.50	Per % nos			
	(b) Labour rate for carrying & placing filled E.C.Bags					{S		
	Unskilled mazdoor for carrying filled bags and placing to work site	3	nos	287.00	861.00			
	Add Overhead charge & C.P@15%				129.15			
					990.15			
	Rate per % nos	Say Rs		990.20	Per % nos			
	Total (a+b)			1661.70	Per % nos			
5.7.40.2	Labour for filling empty cement bags with local sand, stitching the							


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List of Basic rates of construction material approved by state level schedule rate committee for the year 2020-21 for the preparation of schedule of rates only. Material should confirm to relevant BIS/ IRC/ MORTH/ AS Specification. The rates are exclusive of GST, CP & overhead charge.

Rel. Code No.	NAME OF MATERIALS	UNIT	Basic Rate	Royalty	Basic Rate for SOR 2020-21	Reference
2	3	4	5	6	7	8
	(a). 100 mm long	Each	input	-	#VALUE!	
	(b) 222mm long	Each	input	-	#VALUE!	
	Jute	Each	input	-	#VALUE!	
	M.S Bends	Per Kg	20.44	-	20.44	WRD
	Rubber seal	Each	input	-	#VALUE!	
	Sheet Pile	metre	input	-	#VALUE!	
	Tree branches of dia 150 mm to 200 mm and 3 M to 4.5 M long with jhankhi covering the space of 100 cft in volume	Per M.T	input	-	#VALUE!	
		nos	input	-	#VALUE!	
0761	Fuel (wood) (Rs 500.00 per Quintal)	Kg	5.00	-	5.00	BCD
0326	Blasting fuse (Fuse Wire)	each	15.00	-	15.00	BCD
	Cardium compound	kg	input	-	#VALUE!	
	M.S. Bolt 20mm dia., 25 Cm long	Each	32.88	-	32.88	WRD
8509	Special primer (C.W)	Litre	140.00	-	140.00	BCD
8510	Metal Primer (U.G)	Litre	90.00	-	90.00	BCD
0818	Linseed oil (double boiled)	Litre	200.00	-	200.00	BCD
	Electric Charge	K.W.H	input	-	#VALUE!	
	Slotted pins and wedges 10 mm dia and 60 mm long	nos	input	-	#VALUE!	
	Tube and nuts 26 no. 25 mm dia and above	nos	input	-	#VALUE!	
	M.S Electrodes	nos	input	-	#VALUE!	
771	Kerosene Oil	litre	50.00	-	50.00	BCD
	Gun metal in gate	Kg	input	-	#VALUE!	
	Old empty cement bag (synthetic) (Annexure-I)	Per 100 nos	292.00	-	292.00	WRD
	Nylon Crate of size 1mx1mx1m (As per Annex-II)	Each	39.85	-	39.85	WRD
	Geo bag (non woven) size 1mx0.70m (As per Annex-III)	nos	81.00	-	81.00	Based upon lowest rate by quotation approved by WRD SOR committee
	Mega Geo Bag of size 2mx1.5m (As per Annex-IV)	nos	620.96	-	620.96	WRD
	P.P. Rope Gabion of size 1.80mx1.80mx0.5m (As per Annex-V)	nos.	1780.00	-	1780.00	WRD
	P.P. Rope Gabion of size 1.80mx1.20mx0.5m (As per Annex-VI)	Nos.	1385.00	-	1385.00	WRD
7754	Gravel 5 mm to 10mm	Cum	700.00	150	850.00	including of royalty BCD
	Shalitex Board (For use as per expansion Joint)					
	(i) 25mm thick	Per Sqm	input	-	input	
	(ii) 12mm thick	Per Sqm	input	-	input	
	(iii) 18mm thick	Per Sqm	input	-	input	
	Shalitex Primer	Per litre	input	-	input	
312	Bitumen grade PMB-40	M.T	32200.00	-	32200.00	BCD

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Loading and Unloading of lime, Aggregate, Stone Boulder, Brick Aggregate, Kan~~kar~~, Building Rubbish, Crushed slag, Stone for Masonry Work by Mechanical Means

	Rate per cum=(a+b+c)/5.5				
Note.	Unloading will be done manually				
	Suplying for Brick Bats (with OH)				
A	Basic Rate of Brick Bats	per Cum		1017.00	1017.00
	Add overhed Charges		6%		61.02
	Total				1078.02
	Surface Lead	KM	7		
	Unsurface Lead	KM	1		
	Factor(10/5.5)	Cum	1.8182		
B	Carriage (with OH)				
	(1.8182x7x16.21)+(1.8182x1x20.71)+92.89				336.86
				Total	1414.88
C.	Cost of Labour for providing and Laying Spreading of Brick Bats		1.28	1414.88	1811.05
			1.28	384.54	492.21
	Total (A+B+C)				2303.26
	Add GST 12% & LC 1%				299.42
	Total Cost per Cum				2602.68

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Analysis of Rates (FORMAT F8)

MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
e)	Contractor's profit @ 10% on (a+b+c+d) Cost for 100 cum = a+b+c+d+e Rate per cum = (a+b+c+d+e)/100				1746.31 19210.11 192.11 192.11
303.1	Construction of Subgrade and Earthen Shoulders (Stabilised subgrade) Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirements of Table 300.2 with lead upto 1000 m as per Technical Specification Clause 303.1. Unit = cum Taking output = 100 cum	Total Cost sqm			192.11 192.11
a)	Labour				
	Mate	day	0.04	310.00	12.40
b)	Mazdoor (Unskilled)	day	1.00	292.00	292.00
	Machinery				
	Hydraulic excavator 0.9 cum bucket capacity @ 100 cum per hour	hour	1.67	1969.20	3288.56
	Tractor with Disc Harrows	per hour	2.50	549.10	1372.75
	Dozer D-50 for spreading @ 200 cum per hour				
	Tractor Mounted grader for grading @ 100 cum per hour	hour	4.50	1043.00	4693.50
	Tipper 5.5 cum capacity, 4 trips per hour	cum			469.35
	Add 10 % of the cost of carriage to cover loading & unloading	hour	1.00	3337.90	3337.90
	Dozer D-50 for spreading @ 100 cum per hour	hour	1.00	573.20	573.20
	Tractor mounted grader arrangement for grading @ 100 cum per hour				
	Water tanker with 6 kl capacity	hour	2.00	184.00	368.00
c)	Three wheel 80-100 kN Static Roller @ 70 cum per hour	hour	1.43	803.00	1148.21
	Material				
	Water	kl	12.00	40.00	480.00
	Compensation for earth taken from private land	cum	100.00	34.81	3481.00
	Add Sand @ 20%	cum	20.00	141.85	2837.00
d)	Overheads @ 6 % on (a+b+c)				1171.02
e)	Contractor's profit @ 10% on (a+b+c+d)				2352.50
F)	Add Haulage/Carriage Charge				
	Sand	cum	20.00	159.87	3197.40
	Cost for 100 cum = a+b+c+d+e				29074.87
	Rate per cum = (a+b+c+d+e)/100				290.75
	Total Cost	sqm			290.75
4.2	PAVEMENT CRUST LAYERS				
401	Granular Sub-base with Well Graded Material (Table 400.2) (By mix in place method) For Grading I Material Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.				
	For Grading I Material				
	Unit = cum				
	Taking output = 300 cum				
	Labour				
	Mate	day	0.40	310.00	124.00
	Mazdoor (Skilled)	day	2.00	370.00	740.00
	Mazdoor (Unskilled)	day	8.00	292.00	2336.00
	Machinery				
	Tractor mounted grader arrangement for grading @ 100 cum per	hour	6.00	573.20	3439.20
	Three wheel 80-100 kN static roller @ 10 cum per hour	hour	30.00	803.00	24090.00
	Tractor with Rotavator 25 cum per hour	hour	12.00	573.20	6878.40
	Water tanker 6 kl capacity	hour	5.00	184.00	920.00
	Material				
	For well graded granular sub-base material as per Table 400.2				
	53 mm to 26.5 mm @ 35%	cum	126.00	511.44	64441.44
	26.5 mm to 4.75 mm @ 45%	cum	162.00	553.36	89644.32
	2.36 mm below @ 20% Course Sand	cum	72.00	175.80	12657.60
	Water	kl	30.00	40.00	1200.00
	Overheads @ 6 % on (a+b+c)				12388.26

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