



ग्रामीण कार्य विभाग

Rural Works Department, Govt of Bihar

BIHAR RURAL ROADS PROJECT

Govt. of Bihar

FDR(Motorable)

Estimate for Motorable of Road from T03 Hilsa To Harbanshpur in Nalanda District.



Name of the Road :-

T03 Hilsa To Harbanshpur

DISTRICT	:	NALANDA	
DIVISION	:	HILSA	
BLOCK	:	HILSA	
TOTAL COST OF CONSTRUCTION	:	18.105	Lac
TOTAL COST OF PROJECT	:	18.195	Lac

SUBMITTED BY
RURAL WORKS DEPARTMENT
WORKS DIVISION-HILSA

8-219

Bara
25/10/2021
J.F.

Del
27/10/21
A.6

INSPECTION REPORT FOR FLOOD DAMAGE WORK

to :

1. Name of PIUS :- R.W.D. HILSA (E.E)
2. Name of Block/Road :- HILSA

3

For Road : To 3 Hilsa To Harbanshpur

1. Damage Location/Change :-
2. Damage Length :- 131.2 m
3. Nature of Damage :-
4. Details of Restoration Works :-
 - i. Material Being used in Restoration works :- Brick bats
 - ii. Equipment's / Tools being used in Restoration works :- Tractor trolley, JCB & Roller
 - iii. Procedure taken up in restoration works :- Mechanically & Manually
 - iv. Restored Length :-

5. For Bridge :

N.A.

1. Damage Location / Chainage :-
2. Damage Length :-
3. Nature of Damage :-
4. Details of Restoration Works :-
 - i. Material Being used in Restoration works :-
 - ii. Equipment's / Tools being used in Restoration works :-
 - iii. Procedure taken up in restoration works :-
 - iv. Restored Length :-

6. Requirement of New CD/Bridge : N.A.

- i. Name of Road :-
- ii. Location Chainage :-
- iii. Type of CD work/Length required :-

- Upload one photograph of damaged portion if available

- Attach minimum two photograph (during restoration & after restoration) photographs should be Geotags and at least one photo be captured in selfie mode.

Ram
09/12/21
JEC

AE

EE

09/12/21
Executive Engineer
Rural Works Department
Works Division, Raigarh

Measurements

(1) CH - 10th K.M

$$(i) 17.60 \times \frac{1.20 + 1.60 + 1.20 + 1.40}{4} \times \frac{2.1 + 2.8 + 2.3 + 1.5}{4}$$

$$= 17.60 \times 1.35 \times 2.175 = 51.678 \text{ m}^3$$

(2) CH - 9th K.M.

$$(i) 7.5 \times 2.0 \times 2.0 = 30 \text{ m}^3$$

$$(ii) 8.5 \times 0.6 \text{ M} \times 0.6 \text{ M} = 3.06 \text{ m}^3$$

$$(iii) 15 \times 1.6 \times 2.3 =$$

$$(iv) 15 \times 1.5 \times 2.6 =$$

$$(v) 4 \text{ m} \times 1.6 \times 2.1 = 3.2 \text{ m}^3$$

(3) CH - 9th K.M

$$(i) 8.2 \times \frac{1.2 + 1.4 + 1.3}{3} \times 0.5$$

$$= 8.2 \times 1.3 \times 0.5 = 5.33 \text{ m}^3$$

$$(ii) 4.1 \times \frac{9.8 + 3.0}{2} \times 2.7 =$$

$$= 4.1 \times 3.5 \times 2.7 = 38.74$$

$$(iii) 36.5 \times \frac{2.8 + 2.2 + 1.6 + 2.2}{4} \times \frac{(2.2 + 1.6 + 1.9)}{3}$$

$$= 36.5 \times 2.2 \times 1.9 = 152.57 \text{ m}^3$$

(4) CH - 9th K.M

$$(i) 5.0 \text{ m} \times 2.1 \times \frac{1.5 + 1.40 + 1.20}{3}$$

$$= 5.0 \times 2.1 \times 1.533 = 16.09$$

$$(ii) 2.3 \text{ m} \times 2.2 \times 1.1 = 5.56$$

(5) CH - 9th K.M

$$(i) 4.0 \text{ m} \times \frac{1.9 + 1.6}{2} \times 2.2$$

$$= 4.0 \text{ m} \times 1.75 \times 2.2 = 15.4 \text{ m}^3$$

$$(ii) 3.5 \times \frac{1.9 + 2.1 + 1.8 + 2.2}{4} \times \frac{1.4 + 0.90}{2}$$

$$= 3.5 \times 2.025 \times 1.15 = 8.150 \text{ m}^3$$

SUMMARY OF COST ESTIMATE FOR THE PROJECT

NAME OF ROAD : T03 Hilsa To Harbanshpur

DISTRICT NALANDA

BLOCK HILSA

DIVISION HILSA

Sl. No.	DESCRIPTION	AMOUNT (LAKHS)
1	BRICK BATS	821900 = 1819547.000
	Total	1819547.000
	TOTAL COST IN LACS =	18.195
	TOTAL COST OF PROJECT IN LACS =	18.195

[Signature]
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JE
RWD

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27/10/21
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8.219 =
27/10/21
EE
RWD

Technically approved for Rs.....

(Rupees.....)

Condition and direction laid down in attached technical notes with DPR is be followed Strictly

S. E.

RWD

Work Circle Nalanda

Technically Sanctioned for Rs. 821900-00
(Rupees Eight Lacs Twenty one Thousand
Nine Hundred only)
Condition and direction in attached
technical notes must be followed Strictly.

Aruna
24/12/2021
S. E.

RWD

Work Circle Nalanda

22/12/2021

Name of Road T03 Hilsa To Harbanshpur

Sl. No.	Description	Unit	NOS	LENGTH	WIDTH	HEIGHT	QUANTITY	RATE	AMOUNT (in Rs.)
1	SUB HEAD : EARTHWORK, BRICKS BATS, SAND FILLING Construction of Bricks Bats								
	Supplying Brick bats with carriage at site including labour cess , GST and seigniorance fee (excluding over head and CP)								46707=
		cum					860.880	1,201.00	10,33,917.
2	Carriage for Brick bats including labour cess & GST (excluding over head and CP)	No					860.880	564.910	219694= 4,86,319.
3	Supplying unskilled labour for Brick bats and laying 600 mm dia for spreading and levelling brick bats including labour cess & GST (excluding over head and CP)	No					912.533	328.00	135136= 2,99,311.
									18,19,547
									8,21,90

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Name of Road T03 Hilsa To Harbanshpur
Block HILSA
District NALANDA

Calculation of Brick Bats

Sl.No	Lenth (m)	Width(m)	Thickness (m)	Qty. (Cum)
1	17.60	1.375 1.35	2.200 2.175	53.240 51.678
2	66.00 7.50	1.025 2.0	2.333 2.0	201.920 30.0
3	2.50 8.50	1.400 0.60	1.400 0.60	3.850 3.06
4	4.50 15.0	1.500 1.60	1.200 2.30	8.100 55.20
5	2.10 15.0	1.800 1.50	1.400 2.60	4.160 58.30
6	4.50 4.0	0.933 1.60	1.850 2.10	7.770 13.44
7	8.00 8.20	2.500 1.30	2.400 0.50	42.000 5.33
8	5.50 4.10	1.767 3.50	2.267 2.70	22.030 38.79
9	43.00 36.50	2.800 2.20	3.420 1.90	375.650 152.57
10	6.00 5.0	1.800 2.10	1.300 1.533	14.040 16.09
11	3.00 2.30	1.500 2.20	1.300 1.10	6.850 5.56
12	2.20 4.0	1.300 1.75	1.400 2.20	3.160 15.40
13	7.20	1.900	1.533	20.970
14	3.50	2.025	1.150	8.150
	174.6		Total	860.880 453.718 m ³

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25/10/2021
J.E.

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09/11/21
E.E.

R.W.D. Raut Sir

Quantity after deduction of voids $453.718 \text{ m}^3 \times \frac{12}{14} = 388.901 \text{ m}^3$

19/11/21
A.E.
Rama
09/12/2021
J.E.

Analysis for Carriage by Road (By Tractor)

Name of Road:- T03 Hilsa To Harbanshpur
District:- NALANDA

Block :- HILSA

Sl No	Item with Source	Unit	Source Up to	Carriage Cost & Lead in Km										Loading & Unloading Cost	Carriage Cost by Rail Head	Total				
				Pucka / Surface						Katcha										
1	Brick bat	_Cum	Local	3.60	x	22.24	x	7.00 Km	=	Rs 249.09	3.60	x	27.78	x	1.00 Km	=	Rs 44.46	206.37	0.00	Rs. 499.92
				2.25							2.25									

Carriage Including GST and Labour Cess For Brick
Bats

564.9096

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SDB SL No.	MOR D Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount (in Rs)
1.1 RCD		Loading and Unloading of brick bats with tractor				
		Unit=cum				
		Taking output= 2.25 cum				
		Time required for		1 MIN		
		i) Positioning of tipper at loading point		5 Min		
		ii) Loading by front end loader 1 cum bucket capacity @ 25 cum per hour		0 Min		
		iii) Maneuvering, reversing, dumping and turning for return		6 Min		
		iv) Waiting time, unforeseen contingencies etc				
		Total				
		a) Labour	day	0.03	415	12.450
		Male	day	0.72	328	236.160
		Mazoor for loading and unloading				
		b) Machinery	hour	0.1	525	52.500
		Tractor 3.60 tonne capacity	hour	0.083	1650	136.950
		Front end loader 1cum bucket capacity @25 cum/hour				
		c) Overhead charges @ 0.06 on (a+b)				0.000
		d) contractor profit @ 0.0on (a+b+c)				464.344
		Cost for 2.25 cum= (a+b+c+d)				206.375
		Rate per cum= (a+b+c+d)/2.25				
	Note	Unloading will be done manually				
1.4 RCD		Cost of Haulage Excluding Loading and Unloading				
		Haulage of material by Tractor excluding cost of loading, unloading and stacking.				
		Unit= Lkm				
		Taking output 3.60 tonnes load and lead 10 km= 36.0 t.km				
	i)	Surface Road				
		Speed with load : 15 km/hour				
		Speed while Returning empty : 25 km/ hour				
		a) Machinery				
		Tractor 3.6 tonne capacity	hour	0.667	707.90	472.169
		Time taken for onward haulage with load	hour	0.4	707.90	283.160
		Time taken for empty return trip.				755.329
		Total				45.320
		b) Add overhead charges @0.06				0.000
		c) Add contractor profit @0.0				800.649
		cost for 36 t.km = a+b+c				22.240
		Rate per t.km = (a+b+c)/36				
	ii)	Unsurface Graveled Road/ Katcha				
		Speed with load : 12 km/ hour				
		Speed for empty return trip: 20 km/ hour				
		a) Machinery				
		Tractor 3.6 tonnes capacity	hour	0.833	707.90	589.681
		Time taken for onward haulage with load	hour	0.5	707.90	353.950
		Time taken for empty return trip				943.631
		Total				56.618
		b) Add overhead charges @0.06				0.000
		c) Add contractor profit @0.0				1000.249
		Cost for 36 t.km = a+b+c				27.785
		Rate per t.km = (a+b+c)/36				