

RURAL WORKS DEPARTMENT



GOVERNMENT OF BIHAR

CIRCLE – R.W.D Works Circle, Chapra

DIVISION – R.W.D Works Division, Marhaura

Name of Work – ~~Restoration~~/Motrable of Road from Amnaur Harnarayan Bhanu Pratap Sah k ghar se Amnaur bada pokhra PMGSY path tak

Block - Amnaur

Estimated Cost - Rs 266143.45

2020-21

ABSTRACT OF COST

Inspection Report for Flood damage work

Date:

1. Name of PIUs-

E.E.R.W.D.(W) Maanharan

2. Name of Block/Road- Amarnur - Marketable of Road from Amarnur
Haramayan Bhannu Post to Sah K Ghar Se Amarnur Gada.

A. For Road

P.H.G.S.Y.

1. Damage Location/Chainage : 0.600 k.m + 0.700 k.m 0.850

2. Damage Length : 68 M.

3. Nature of Damage : Road cutting due to flood.

4. Details of Restoration : Brick Bat & sand filling work.

i Material being used in Restoration :

ii Equipment/Tools being used in Restoration works:

iii Procedure taken up in Restoration works

iv Restored Length

Tractor & rollers, J.C.B. Tractor
: 68 M. Brick Bat & sand filling work
: 684. Length of work.

B. For Bridge

1. Damage Location/Chainage :

2. Damage Length :

3. Nature of Damage :

4. Details of Restoration :

i Material being used in Restoration :

ii Equipment/Tools being used in Restoration works:

iii Procedure taken up in Restoration works

iv Restored Length

Signature of JE/AE/EE

Signature

AKHILESH KUMAR
(Name of Inspector)

E.E.R.W.D

(W) DIVISION - SONEPUR

Name of Work – Restoration/Mottrable of Road from
Amnaur Harnarayan Bhanu Pratap Sah k ghar se Amnaur
bada pokhra PMGSY path tak

Block – Amnaur

Sl No.	Particulars	Amount(In Rs)
A	Cost of Restoration Work	Rs 235525.18
B	Add 12% GST on (A)	Rs 28263.02
C	Add 1% L.Cess on (A)	Rs 2355.25
	Total Cost	Rs 266143.45


J.E.

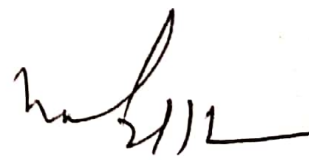
RWD

Amnaur


A.E.

RWD

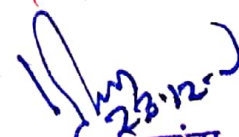
Marhaura


E.E.

RWD

Marhaura

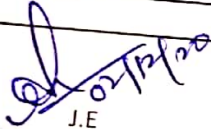
T/A for Rs 266 143 = 0 (Two lakh Sixty six thousand four hundred and thirty four Rupees only)

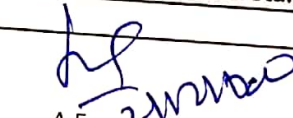

अधीक्षण अभियंता
ग्रामीण कार्य विभाग
कार्य प्रमंडल, छपरा

Detailed Estimate

Name of Work - **Restoration/Mottrable of Road from Amnaur Harnarayan Bhanu Pratap Sah k ghar se Amnaur bada pokhra PMGSY path tak**

Sl.No.	Item	S No	Length	Width	Avg.H/D	Qty	Unit	Rate	Amount
1	Providing laying and spreading brick bats in road ditches all complete as per approved design, specification and direction of E/I.	1	30	4	0.6	72			
		2	30	2	0.5	30			
		3	3	4	0.5	6			
		4	5	4	0.5	10			
		Total				118			
2	Filling and spreading local sand over brick bats as per drawing and technical specification Clause 303.5.9	1	30	4	0.1	12	Cum	1909.87	225364.66
		2	30	2	0.1	6			
		3	3	4	0.1	1.2			
		4	5	4	0.1	2			
		Total				21.2			
						Cum	479.27	10160.52	
TOTAL								235525.18	


J.E
RWD
Amnaur


A.E
RWD
Marhaura


E.E
RWD
Marhaura

ANALYSIS FOR CARRIAGE OF MATERIAL

(A) Name of the Work :- Restoration/Motable of Road from

(B) Haulage Charge By 8 T Capacity Truck

- (i) For Surface Road :- Rs. 7.52 Per t per K.M
- (ii) For Unsurface Road :- Rs. 9.04 Per t per K.M
- (iii) For Kutcha Road :- Rs. 18.19 Per t per K.M

1 CARRIAGE COST OF BAMBOO 62 MM TO 75 MM OF 6 To 8 M LONG

Lead as per Quarry Chart :- 5 P + 5 K

$$\text{Haulage Cost} = \frac{8}{3.00} \times [(7.52 \times 5.00) + (18.19 \times 5.00)] = 206.09$$

Loading & Unloading =

$$\begin{aligned} &= 2224.00 \\ \text{Total per \% Nos} &= 2430.09 \\ \text{Total per m} &= 3.47 \end{aligned}$$

2 CARRIAGE COST OF STONE BOULDER

Lead as per Quarry Chart :- 180 P + 0 K

$$\text{Haulage Cost} = \frac{8}{4.80} \times [(7.52 \times 180.00) + (18.19 \times 0.00)] = 2256.00$$

Loading & Unloading =

$$\begin{aligned} &= 196.13 \\ \text{Total per M}^3 &= 2452.13 \end{aligned}$$

3 CARRIAGE COST OF GSB Material

Lead as per Quarry Chart :- 180 P + 0 K

$$\text{Haulage Cost} = \frac{8}{4.99} \times [(7.52 \times 180.00) + (18.19 \times 0.00)] = 2170.10$$

Loading & Unloading =

$$\begin{aligned} &= 196.13 \\ \text{Total per M}^3 &= 2366.23 \end{aligned}$$

4 CARRIAGE COST OF HUME PIPE (1000 MM DIA)

Lead as per Quarry Chart :- 55 P + 0 K

$$\text{Haulage Cost} = \frac{8}{22.5} \times [(7.52 \times 55.00) + (18.19 \times 0.00)] = 330.88$$

Loading & Unloading =

$$\begin{aligned} &= 76.58 \\ \text{Total per M} &= 407.46 \end{aligned}$$

5 CARRIAGE COST OF HUME PIPE (600 MM DIA)

Lead as per Quarry Chart :- 55 P + 0 K

$$\text{Haulage Cost} = \frac{8}{52.50} \times [(7.52 \times 55.00) + (18.19 \times 0.00)] = 63.02$$

Loading & Unloading =

$$\begin{aligned} &= 32.82 \\ \text{Total per M} &= 95.84 \end{aligned}$$

- (C) Haulage Charge By 3.60 t Tractor capacity
- (i) For Surface Road :- Rs. 18.70 Per t per K.M
 - (ii) For Unsurface Road :- Rs. 23.30 Per t per K.M
 - (iii) For Kutcha Road :- Rs. 29.20 Per t per K.M

1 CARRIAGE COST OF BRICK BAT

Lead as per Quarry Chart :-

$$\text{Haulage Cost} = \frac{3.60}{2.25} \times [(18.70 \times 7.00) + (29.20 \times 1.00)] = 256.16$$

Unloading =

$$= \frac{65.38}{321.54}$$

$$\text{Total per 1000 Nos.} = 321.54$$

2 CARRIAGE COST OF LOCAL SAND

Lead as per Quarry Chart :-

$$\text{Haulage Cost} = \frac{3.60}{2.25} \times [(18.70 \times 2.00) + (29.20 \times 1.00)] = 106.56$$

Unloading =

$$= \frac{40.81}{147.37}$$

$$\text{Total per M}^3 = 147.37$$

3 CARRIAGE COST OF STEEL

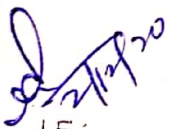
Lead as per Quarry Chart :-

$$\text{Haulage Cost} = \frac{3.60}{3.60} \times [(18.70 \times 5.00) + (29.20 \times 0.00)] = 93.50$$

Loading & Unloading =

$$= \frac{325.46}{418.96}$$

$$\text{Total per Mt} = 418.96$$



J.E.
RWD
Marhaura
A.P. 2020



A.E.
R.W.D
Marhaura



E.E.
R.W.D
Marhaura

SUMMARY OF CARRIAGE COST OF MATERIAL

Name of work:

Restoration/Motable of Road from Roy Sahib high school to Dushyant Verma

Amnour Harnarayan Bhanu Pradap Sah Ke Ghar Se Amnour
Bara Pokhara PMGSY path Tek

S.I No.	Name of material	Unit	Source	Mode of Transport	Carriage Charge by Road	Total Carriage up to site
1	2	3	4	5	7	8
1	Bricks Bats	per m ³	Local Kiln	By Road	321.54	321.54
2	Fine sand	per m ³	Local source	By Road	147.37	147.37
3	Steel	per mt	Local	By Road	418.96	418.96
4	Boulder	per m ³	Sheikhpura	By Road	2452.13	2452.13
5	Stone metal <50 mm	per m ³	Sheikhpura	By Road	2366.23	2366.23
6	Hume pipe (1000 mm dia)	Per metre	Hajipur	By Road	407.46	407.46
7	Hume pipe (600 mm dia)	Per metre	Hajipur	By Road	95.84	95.84
8	Bamboo of 62 to 75 mm dia	Per metre	Local	By Road	3.47	3.47

JE 2/12/20

RWD
Marhaura
Amnour

A.E.
R.W.D
Marhaura
2/12/20

E.E.
R.W.D
Marhaura

FDR Analysis

Sr. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
1.1	Loading and Unloading of Lime, Aggregate, Stone Boulder, Brick Aggregate, Kankar, Building Rubbish, Crushed Slag, Stone for Masonry Work by Manual Means				
(i)	Loading of Lime, Aggregate, Stone Boulder, Brick Aggregate, Kankar, Building Rubbish, Crushed Slag, Stone for Masonry Work by manual means including a lead upto 30 m				
	Unit = cum				
	Taking output = 5.5 cum				
a)	Labour				
	Mate	day	0.02	305.00	6.10
	Mazdoor (Unskilled)	day	0.50	287.00	143.50
b)	Machinery				
	Truck	hour	0.50	934.30	467.15
c)	Overheads on (a+b)	=@ 6%			37.01
d)	Contractor's profit on (a+b+c)	=@ 10%			65.38
	Cost for 5.5 cum = a+b+c+d				719.13
	Rate per cum = (a+b+c+d)/5.5				130.75
(ii)	Loading of Earth, Sand, Moorum, Manure, Flyash by manual means including a lead upto 30 m				
	Unit = cum				
	Taking output = 5.5 cum				
a)	Labour				
	Mate	day	0.01	305.00	3.05
	Mazdoor (Unskilled)	day	0.25	287.00	71.75
b)	Machinery				
	Truck	hour	0.25	934.30	233.58
c)	Overheads on (a+b)	=@ 6%			18.50
d)	Contractor's profit on (a+b+c)	=@ 10%			32.69
	Cost for 5.5 cum = a+b+c+d				359.57
	Rate per cum = (a+b+c+d)/5.5				65.38
(iii)	Unloading of Lime, Aggregate, Stone Boulder, Brick Aggregate, Kankar, Building Rubbish, Crushed Slag, Stone for Masonry Work by manual means including a lead upto 30 m				
	Unit = cum				
	Taking output = 5.5 cum				
a)	Labour				
	Mate	day	0.01	305.00	3.05
	Mazdoor (Unskilled)	day	0.25	287.00	71.75
b)	Machinery				
	Truck	hour	0.25	934.30	233.58
c)	Overheads on (a+b)	=@ 6%			18.50
d)	Contractor's profit on (a+b+c)	=@ 10%			32.69
	Cost for 5.5 cum = a+b+c+d				359.57
	Rate per cum = (a+b+c+d)/5.5				65.38

(iv) Unloading of Earth, Sand, Moorum, Manure, Flyash by manual means including a lead upto 30 m

Unit = cum

Taking output = 5.5 cum

a) Labour

Mate	day	0.005	305.00	1.53
Mazdoor (Unskilled)	day	0.125	287.00	35.88

b) Machinery

Truck	hour	0.166	934.30	155.09
-------	------	-------	--------	--------

c) Overheads on (a+b)

=@	6%			11.55
----	----	--	--	-------

d) Contractor's profit on (a+b+c)

=@	10%			20.40
----	-----	--	--	-------

Cost for 5.5 cum = a+b+c+d

224.45

Rate per cum = (a+b+c+d)/5.5

40.81

3 Loading, Unloading and Stacking of Bricks by Manual Means

(i) Loading of Bricks by manual means including a lead upto 30 m

Unit = 1000 Nos.

Taking output = 2000 Nos.

a) Labour

Mate	day	0.01	305.00	3.05
Mazdoor (Unskilled)	day	0.25	287.00	71.75

b) Machinery

Truck	hour	0.33	934.30	308.32
-------	------	------	--------	--------

c) Overheads on (a+b)

=@	6%			22.99
----	----	--	--	-------

d) Contractor's profit on (a+b+c)

=@	10%			40.61
----	-----	--	--	-------

Cost for 2000 Nos. = a+b+c+d

446.72

Rate for 1000 bricks = (a+b+c+d)/2

223.36

(ii) Unloading and Stacking of Bricks by manual means including a lead upto 30 m

Unit = 1000 Nos.

Taking output = 2000 Nos.

a) Labour

Mate	day	0.01	305.00	3.05
Mazdoor (Unskilled)	day	0.25	287.00	71.75

b) Machinery

Truck	hour	0.33	934.30	308.32
-------	------	------	--------	--------

c) Overheads on (a+b)

=@	6%			22.99
----	----	--	--	-------

d) Contractor's profit on (a+b+c)

=@	10%			40.61
----	-----	--	--	-------

Cost for 2000 Nos. = a+b+c+d

446.72

Rate for 1000 bricks = (a+b+c+d)/2

223.36

Loading and Unloading of Structural Steel and Steel Bars by manual means

(i) Loading of Structural Steel, Steel Bars by manual means including a lead upto 30 m

Unit = t

Taking output = 10 t

a) Labour

Mate	day	0.07	305.00	21.35
Mazdoor (Unskilled)	day	1.80	287.00	516.60

b) Machinery

Truck	hour	1.00	934.30	934.30
-------	------	------	--------	--------

c) Overheads on (a+b)

=@	6%			88.34
----	----	--	--	-------

d) Contractor's profit on (a+b+c)

=@	10%			156.06
----	-----	--	--	--------

Cost for 10 t = $a+b+c+d$

1716.64

Rate per tonnes = $(a+b+c+d)/10$

171.66

(ii) Unloading of Structural Steel, Steel Bars by manual means including a lead upto 30 m

Unit = t

Taking output = 10 t

a) Labour

Mate

Mazdoor (Unskilled)

day 0.07 305.00 21.35

b) Machinery

Truck

day 1.80 287.00 516.60

c) Overheads on (a+b)

hour 1.00 934.30 934.30

d) Contractor's profit on (a+b+c)

=@ 6% 88.34

Cost for 10 t = a+b+c+d

=@ 10% 156.06

Rate per t = (a+b+c+d)/10

1716.64

171.66

1.9 Loading and Unloading of Hume Pipes

(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 0.02 305.00 6.10

b) Machinery

Truck

day 0.50 287.00 143.50

Crane

hour 0.33 934.30 308.32

c) Overheads on (a+b)

hour 0.33 1,289.30 425.47

d) Contractor's profit on (a+b+c)

=@ 6% 53.00

Cost for 9 pipes = a+b+c+d

=@ 10% 93.64

Rate per pipe = (a+b+c+d)/9

1030.03

Rate per M = (a+b+c+d)/2.50

114.45

45.78

C. 600/450 mm dia Hume pipe

Unit = per pipe

Taking output = 21 pipe

a) Labour

Mate

Mazdoor (Unskilled)

day 0.02 305.00 6.10

b) Machinery

Truck

day 0.50 287.00 143.50

Crane

hour 0.33 934.30 308.32

c) Overheads on (a+b)

hour 0.33 1,289.30 425.47

d) Contractor's profit on (a+b+c)

=@ 6% 53.00

Cost for 21 pipes = a+b+c+d

=@ 10% 93.64

Rate per pipe = (a+b+c+d)/21

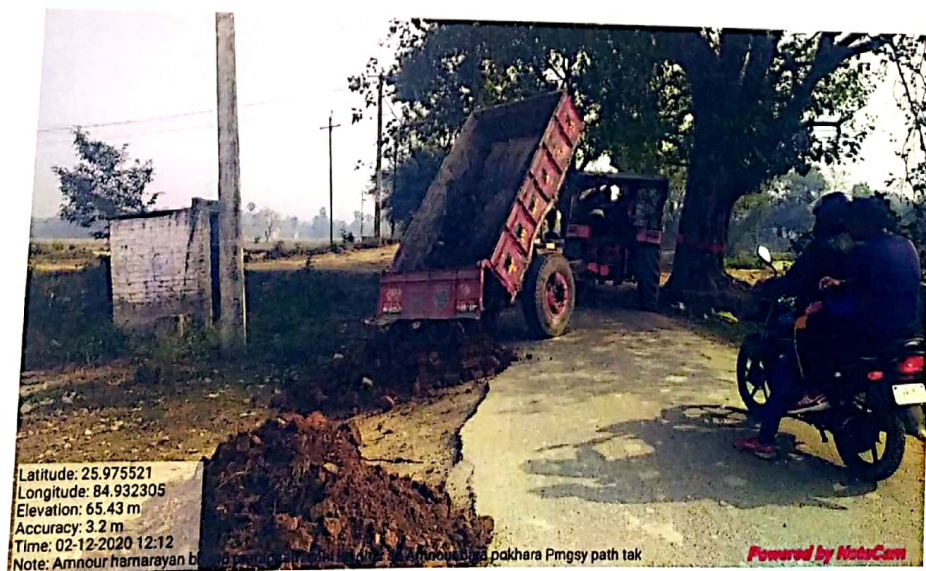
1030.03

Rate per M = (a+b+c+d)/2.5

49.05

19.62

Name of Road - F.D.R Block - Amnour
 Moterabte of Road from Amnour Hamrayan Bhanu pratap
 sah ke ghar se Amnour bara pokhara Pmgsy path tak



40
 28/12/20
 27/12/20
 J/E

FDR

Name of Road - Moterabale of Road from - Amnour Harnarayan Bhanu
Pratap sah ke ghar se Amnour bara pokhara pmusy path tak

Block - Amnour



ke
28/12/20
A

27/12/20
1/E-A

F.D.R
Amnour Harnarayan Ghany Pratap Sah ke Uhar se Amnour
Bara Pokhara pmhsy path Tak



by
27/12/20
A



by
27/12/20
S.B. An

A