



ग्रामीण कार्य विभाग

Rural Works Department, Govt of Bihar

PLAN HEAD- FDR YEAR 2021-22

DISTRICT :- EAST CHAMPARAN
BLOCK :- PATAHI

Estimate for Repair of Road breaches
(Damaged by Flood) for Motorability in
PATAHI SUGAPIPAR To GONAHAI PURVI
TOLA

LENGTH OF ROAD (in Km)- 2.163 KM

ESTIMATED COST - ~~14.730~~ Lacs
13.677

SUBMITTED BY:
EXECUTIVE ENGINEER,
RWD WORKS DIVISION,
PAKRIDAYAL

तकनीकी प्रतिवेदन

पथ का नाम:- पताही खुजापीपर से जोनाही पूर्वी टीला

प्रखंड का नाम :- पताही

पथ की लम्बाई :- 2.163 K.M


शीर्ष:- F.D.R

प्राक्कलित राशि:- 14.730 लाख

योजना शीर्ष :- M.M.G.S.Y

उपरोक्त योजना का प्राक्कलन सचिव, ग्रामीण कार्य विभाग, बिहार पटना के पत्रांक 1937 दिनांक 07.07.2021 के द्वारा दिए गए निदेश के आलोक में एवं कार्यपालक अभियंता, ग्रामीण कार्य विभाग, कार्य प्रमंडल, पकड़ीदयाल के निदेशानुसार स्थल जॉचोपरान्त तैयार किया गया है। माह मई 2021 से अक्टुबर 2021 के बीच प्रलयकारी बाढ़ एवं अतिवृष्टि के कारण उक्त पथ में अनेक स्थानों पर कटाव हो गया था जिस कारण पथ से होकर आवागमन बाधित हो गया था। पथ से होकर तत्काल आवागमन चालू करने हेतु क्षतिग्रस्त भाग में तत्काल उपलब्ध हो सके सामग्री यथा-ईट टूकडा/स्थानीय बालू/ बॉस-बल्ला/ खाली सिमेंट बैग/ हयूम पाईप आदि आवश्यकतानुसार उपयोग करने का प्रावधान किया गया है। यह कार्य निदेशानुसार विभागीय रूप से करा दिया गया है।

यह प्राक्कलन अद्यतन अनुसूचित दर पर संवेदक लाभ रहित तैयार किया गया है। जनहित में इसकी स्वीकृति अपेक्षित है।


26/10/21

कनीय अभियंता
ग्रामीण कार्य विभाग,
प्रशाखा, पताही


26/10/21

सहायक अभियंता
ग्रामीण कार्य विभाग,
कार्य अवर प्रमंडल,.....


26/10/21

कार्यपालक अभियंता
ग्रामीण कार्य विभाग,
कार्य प्रमंडल, पकड़ीदयाल।

GENERAL ABSTRACT OF COST

ESTIMATE FOR REPAIR OF ROAD BREACHES (DAMAGED BY FLOOD) FOR MOTORIBILITY IN PATAHI SUGAPIPAR TO GONAH PURVI TOLA

DISTRICT - EAST CHAMPARAN

DIVISION - PAKRIDAYAL

BLOCK - PATAHI

LENGTH OF ROAD (in Km)- 2.163 KM

| SL. No. | Item of Work | Amount |
|------------|--|--------------------|
| 1 | EARTH WORK : | 0.000 Lacs |
| 2 | BRICK BATS : | 12.121 Lacs |
| 3 | SAND BAGS : | 0.000 Lacs |
| 4 | HUME PIPE : | 0.304 Lacs |
| | COST OF RESTORATION : | 12.425 Lacs |
| | ADD SEIGNIORAGE FEE @ 10% OF MATERIAL COST : | 0.689 Lacs |
| | ADD LABOUR CESS @ 1% : | 0.124 Lacs |
| | ADD GST @ 12% : | 1.491 Lacs |
| | TOTAL COST OF RESTORATION OF ROAD : | 14.730 Lacs |


26/10/21

Junior Engineer


26/10/21

Asstt. Engineer


26/11/21

Executive Engineer

Name of Work:- Estimate for Repair of Road breaches (Damaged by Flood) for Motorability in PATAHI SUGAPIPAR
To GONAH PURVI TOLA

Head - FDR

| SI No. | Item No. | Name of Item | unit | No | Length | Width | Height | Qty. | Rate | Amount |
|----------------|----------|--|------|----|--------------------|-------|--------|---------|-------------------------------|-------------------------------------|
| 1 | | EARTH WORK - Construction of embankment with approved material obtained from borrow pits with a lift upto 1.5 m, transporting to site, spreading, grading to required slope and compacting to meet requirement of Tables 300.1 and 300.2 with a lead upto 1000 m as per Technical Specification Clause 301.5 | cum | | As Per Appendix I | | | 0 | 183.70 | 0 |
| 2 | | Providing and Labour for laying dry graded Brick Bats including light ramming etc. all complete as per approved design, specification and direction of E/I. | cum | | As Per Appendix II | | | 698.220 | 1736.07 1938.89 | 1212416.90 1353772.00 |
| 3 | | Providing, Filling Sand Bag, Stitching and Placing etc. all complete as per specification and direction of E/I. | Nos. | | | | | 0.000 | 24.45 | 0.00 |
| 4 | | Providing and laying 1000 mm dia reinforced cement concrete pipe NP3 for culvert on first class bedding of granular material in single row excluding excavation, protection works, backfilling, concrete and masonry. | RM | | 2 Nos*2.5m | | | 5.000 | 6986.50 2781.35 | 34432.50 13907.00 |
| 5 | | Providing and laying 600 mm dia reinforced cement concrete pipe NP3 for culvert on first class bedding of granular material in single row excluding excavation, protection works, backfilling, concrete and masonry. | RM | | 0 Nos*2.5m | | | 0.000 | 2545.18 | 0.00 |
| TOTAL (in Re.) | | | | | | | | | | 1367700.00 |

S. A. S.
26/10/21
Junior Engineer,
Rural Works Department,
Works Section, PATAHI

A. S.
26/10/21
Assistant Engineer,
Rural Works Department,
Works Sub Division, PATAHI

V. S.
24/11/21
Executive Engineer,
Rural Works Department,
Works Division, PAKRIDAYAL

Post facto TAMS is accorded for Rs. 13,67,700.00
(Thirteen lacs Sixty seven thousand seven hundred) only.

S.E. (R.W.D.)
works Circle
Motihari

SEIGNIORAGE FEE CALCULATION SHEET

| Item description | unit | Quantity of Consuming Item | Materials Required/ Unit | Unit | Quantity/ Unit | Total Quantity Required | Rate | Amount | Seigniorage Fee (RS) | Final Amount (RS) |
|--|---------|----------------------------|--------------------------|------|----------------|-------------------------|--------|-----------|----------------------|-------------------|
| Earth Work | Cum | 0.00 | Earth | Cum | 1.0 | 0.00 | 34.82 | 0.00 | 0.00 | 0.00 |
| Brick bats | Cum | 698.22 | Brick bats | Cum | 1.0 | 698.22 | 987.00 | 689143.14 | 68914.31 | 68914.31 |
| Sand Bags | per bag | 0.00 | sand | Cum | 0.034 | 0.00 | 141.85 | 0.00 | 0.00 | 0.00 |
| 1000 MM Dia | RM | 5.00 | Sand at site | Cum | 0.04 | 0.20 | 175.80 | 35.16 | 3.52 | 3.52 |
| 600 MM Dia | RM | 0.00 | Sand at site | Cum | 0.0032 | 0.00 | 175.80 | 0.00 | 0.00 | 0.00 |
| Total Amount of seigniorage fee in construction (Rs) | | | | | | | | | | 68917.83 |

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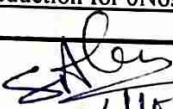
Name of Work:-

Estimate for Repair of Road breaches (Damaged by Flood) for Motorability in PATAHI SUGAPIPAR To GONAH PURVI

Appendix - II

Motorability in PATAHI SUGAPIPAR To GONAHIPURVI

| Appendix - II | | | | | |
|--|---|------------|---------------|---------------|----------------|
| Measurement for surfacing the Breach with Brick Bats | | | | | |
| Sl. No. | Chainage | Length (M) | Av. Width (M) | Thickness (M) | Quantity (cum) |
| 1 | 0.000 To 0.500 | 30.000 | 3.750 | 1.500 | 168.750 |
| 2 | | 6.000 | 4.000 | 0.900 | 21.600 |
| 3 | | 6.000 | 3.750 | 0.900 | 20.250 |
| 4 | 1.300 To 2.000 | 10.000 | 4.000 | 1.100 | 44.000 |
| 5 | | 25.000 | 5.00+3.75/2 | 3.00+2.00/2 | 273.440 |
| 6 | | 7.000 | 1.600 | 1.200 | 13.440 |
| 7 | | 58.000 | 2.50+1.50/2 | 1.400 | 162.400 |
| | | Total | | | 703.88 |
| | Deduction for 2Nos old 1000 mm HP at 5 m (3.142*0.36*5) | | | | -5.66 |
| | Deduction for 0Nos old 600 mm HP at 0 m (3.142*0.22*0) | | | | 0.00 |
| | Net Quantity of Brick Bats | | | | 698.22 |


26/10/21
Junior Engineer



Assistant Engineer


Executive Engineer

BRICK BATS PITCHING MANUAL MEANS

| | | | | | |
|--------------------------------|---|------|-------|--------|---------------|
| 6.6.1 WRD Bihar | Labour for laying dry graded Jhama Khoa or stone filter under Brick Pitching or Boulder Pitching in slope or apron including light ramming etc. all complete as per approved design, specification and direction of E/I. | | | | |
| | Unit :- Per Cum | | | | |
| | Taking Output = 2.832 Cum | | | | |
| | Unskilled Mazdoor | Nos. | 3 | 304.00 | 912.00 |
| | Rate for 2.832 Cum | | | | 912.00 |
| | Rate per Cum (Rs.) - | | | | 322.03 |
| 1.4 RCD | Cost of Haulage Excluding Loading and Unloading | | | | |
| | Haulage of materials by Tractor excluding cost of loading, unloading and stacking. | | | | |
| | Unit = t.km | | | | |
| | Taking output 3.60 tonnes load and lead 10 km = 36.0 t.km | | | | |
| | (i) Surfaced Road | | | | |
| | Speed with load : 15 km / hour. | | | | |
| | Speed while Returning empty :25 km / hour. | | | | |
| | a) Machinery. | | | | |
| | Tractor 3.6 tonne capacity | | | | |
| | Time taken for onward haulage with load | hour | 0.667 | 612.00 | 408.20 |
| | Time taken for empty return trip. | hour | 0.400 | 612.00 | 244.80 |
| | cost for 36 t km = a+b+c | | | | 653.00 |
| | Rate per t.km = (a+b+c)/36 | | | | 18.14 |
| | Say Rs. - | | | | 18.14 |
| | (ii) Unsurfaced Graveled Road | | | | |
| | Speed with load: 12 km / hour | | | | |
| | Speed for empty return trip :20 km / hour | | | | |
| | a) Machinery | | | | |
| | Tractor 3.6 tonnes capacity | | | | |
| | Time taken for onward haulage with load | hour | 0.833 | 612.00 | 509.80 |
| | Time taken for empty return trip hour 0.5 | hour | 0.500 | 612.00 | 306.00 |
| | Cost for 36 t .km = a+b+c 840.34 | | | | 815.80 |
| | Rate per t.Km = (a+b+c)/36 | | | | 22.66 |
| | Say Rs. - | | | | 22.66 |

| | | | | |
|----------------|---|---------|--------|---------|
| 1.1 RCD | Loading and Unloading of Stone Boulder/ Stone aggregates/Brick Bats/Jhama Metal/Sand /Kanker/Moorum | | | |
| | Placing Tractor at loading point, loading with frontloader, dumping, turning for return trip, excluding for haulage and return trip | | | |
| | Unit = cum | | | |
| | Taking output = 2.25 cum | | | |
| | Time required for | | | |
| | i) Positioning of Tractor at loading point | 1 Min | | |
| | ii) Loading by front end loader 1 cum bucket capacity @ 25 cum per hour | 5 Min | | |
| | iii) Maneuvering, reversing, dumping and turning for return | 0 Min | | |
| | iv) Waiting time, unforeseen contingencies etc | 0 Min | | |
| | Total | 6 Min | | |
| | a) Labour | | | |
| | Mate | day | 0.03 | 321.00 |
| | Mazdoor for loading and unloading | day | 0.72 | 304.00 |
| | b) Machinery | | | |
| | Tractor 3.60 tonnes capacity | hour | 0.1 | 612.00 |
| | Front end-loader 1 cum bucket capacity @ 25 cum/hour | hour | 0.083 | 1594.00 |
| | Cost for 2.25 cum = a+b+c+d | | | 422.01 |
| | Rate per cum = (a+b+c+d)/ 2.25 | | | 187.56 |
| Note:- | Unloading will be done manually. | | | |
| | | | | |
| 1. | Supplying for Brick Bats | | | |
| A. | Basic Rate of Brick Bats | Per Cum | 987.00 | 987.00 |
| | Total - | | | 987.00 |
| | Surface Lead | KM | 7 | |
| | Unsurface Lead | KM | 1 | |
| | Factor (3.6/2.25) | Cum | 1.60 | |
| B. | Carriage | | | |
| | (1.6 x 7 x 18.14) + (1.6 x 1 x 22.66) + 187.56 | | | 426.98 |
| C. | Cost of Labour for Pitching and Light Ramming as per WRD SOR 6.6.1 | | | 322.03 |
| | Total (A+B+C) - | | | 1736.01 |
| | Total Cost per Cum | | Rs.- | 1736.01 |


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Chapter 9

PIPE CULVERTS

| Sr. No. | Reference to MORD Specifications | Description | Unit | Quantity | Rate (Rs.) | Amount (Rs.) |
|---------|----------------------------------|--|------|----------|------------|--------------|
| 9.3 | 1100 | Providing and Laying Reinforced Cement Concrete Pipe NP3 as per design in Single Row | | | | |
| | | 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 | | | | |
| | | Unit = m | | | | |
| | | Taking output = 7.5 m | | | | |
| | | (3 pipes of 2.5 m length each) | | | | |
| | | (B) 1000 mm dia | | | | |
| | | a) Labour | | | | |
| | | Mate | day | 0.09 | 321.00 | 28.89 |
| | | Mason (1st Class) | day | 0.25 | 408.00 | 102.00 |
| | | Mazdoor (Unskilled) | day | 2.00 | 304.00 | 608.00 |
| | | b) Material | | | | |
| | | Sand at site | cum | 0.04 | 175.80 | 7.03 |
| | | Cement at site | t | 0.03 | 5,325.60 | 159.77 |
| | | RCC pipe NP3 concrete pipe including collar at site | m | 7.50 | 5,565.00 | 41,737.50 |
| | | Cost for 7.5 m = a+b+c+d | | | | 42,643.19 |
| | | Rate per m = (a+b+c+d)/7.5 | | | | 5,685.76 |
| | | Carriage of Hume Pipe | | | | |
| | | | M | 1.00 | 400.74 | 400.74 |
| | | Rate per m = (with carriage) | | | | 6,086.50 |
| | | (C) 600 mm dia | | | | |
| | | a) Labour | | | | |
| | | Mate | day | 0.05 | 321.00 | 16.05 |
| | | Mason (1st Class) | day | 0.15 | 408.00 | 61.20 |
| | | Mazdoor (Unskilled) | day | 1.20 | 304.00 | 364.80 |
| | | b) Material | | | | |
| | | Sand at site | cum | 0.024 | 175.80 | 4.22 |
| | | Cement at site | t | 0.018 | 5,325.60 | 95.86 |
| | | RCC pipe NP3 concrete pipe including collar at site | m | 7.50 | 2,310.00 | 17,325.00 |
| | | Cost for 7.5 m = a+b+c | | | | 17,867.13 |
| | | Rate per m = (a+b+c)/7.5 | | | | 2,382.28 |
| | | Carriage of Hume Pipe | | | | |
| | | | M | 1.00 | 162.90 | 162.90 |
| | | Rate per m = (with carriage) | | | | 2,545.18 |

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Inspection Report For Flood Damage Work


Date :-

1. Name of PIUs- Executive Engineer, RWD. (W.D), Pakridayal.
2. Name of Block – Patahi.
3. Name of Road – PATAHI SUGAPIPAR TO GONAH PURVI TOLA..

(A) For Road

1. Damage Location/Chainage :- 0.000 To 0.500 & 1.300 To 2.000
2. Damage Length :- 142.00 Meter.
3. Cause of Damage :- Due To Flood 2021/ Heavy Rain.
4. Nature of Damage :- Ditches/Breaches
5. Details of Restoration Work :-
 - (i) Material being used in restoration works :- Bricks Bat/Jhamma Metal/ Rabis/Hume Pipe.
 - (ii) Equipment/Tools being used in restoration Works :- J.C.B./Tractor/Trolley/Others
 - (iii) Procedure Taken up in restoration works :- Emergent Repair.
 - (iv) Restored Length :- 142.00 Meter.


06/11/2021
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6.12.21
Signature of Inspecting officer
(Executive Engineer)
R.W.D. (W.D) Dhaka.