



Bihar Rural Road  
Development Agency



# ग्रामीण कार्य विभाग

Rural Works Department, Govt of Bihar



ग्रामीण कार्य विभाग, बिहार

**BIHAR RURAL ROAD DEVELOPMENT AGENCY (BRDA)**

**F.D.R. PART - A (2021 - 22)**

**DETAILED ESTIMATE FOR F.D.R. RESTORATION WORK**



**DISTRICT :**

**Bhagalpur**

**BLOCK :**

**Khalgoun**

**NAME OF ROAD :**

**RCD Road to Shankarpur Khawas (BR-06R-016)**

|                                      |   |                             |      |
|--------------------------------------|---|-----------------------------|------|
| <b>TOTAL LENGTH OF ROAD</b>          | : | 4.931                       | KM   |
| <b>TOTAL COST OF FDR PART-A</b>      | : | 11.264                      | LAKH |
| <b>GST @ 12 %</b>                    | : | 1.352                       | LAKH |
| <b>LABOUR CESS @ 1 %</b>             | : | 0.113                       | LAKH |
| <b>SEIGNIORAGE FEE @ 10 %</b>        | : | 0.631                       | LAKH |
| <b>TOTALCOST OF RESTORATION WORK</b> | : | 12.935<br><del>13.359</del> | LAKH |

**Submitted By :-**

**Executive Engineer**

Rural Work Department  
Works Division, Khalgoun

## प्रतिवेदन

योजना का नाम – " RCD Road to Shankarpur Khawas " पथ में बाढ़ से क्षतिग्रस्त भाग का मोटरेबुल कार्य।

पथ की लम्बाई – 4.931 कि०मी०

प्राक्कलित राशि – रु० 13.359 लाख

वर्ष 2021 में गंगा नदी में आयी भयंकर बाढ़ से ग्रामीण कार्य विभाग, कार्य प्रमण्डल, कहलगौव अन्तर्गत पीरपैती/कहलगौव/सबौर एवं सन्हीला प्रखण्ड के लगभग 89 पथ /पुल बाढ़ से प्रभावित हुये हैं। इनमें कुछ पथों में कटाव/गड्ढे हो जाने के कारण विभाग द्वारा समय-समय पर प्राप्त दिशा निर्देशों /आदेशों के आलोक में तत्काल युद्धस्तर पर इन पथों को Brick-Bats/ Sand Bag, Bamboo Piling एवं GSB के द्वारा मोटरेबुल कार्य कराया गया है। मोटरेबुल कार्य के बाद सभी पथों में आवागमन चालू हो चुका है।

कराये गये कार्य का प्राक्कलन ग्रामीण कार्य विभाग, कार्य अंचल भागलपुर के पत्रांक 470 दिनांक 22.06.2021 के द्वारा स्वीकृत दर पर तैयार किया गया है तथा इस कार्य का विवरण विभागीय MIS पर FDR Module में प्रविष्ट किया गया है।

कार्य के उपरान्त इसकी तकनीकी अनुमोदन सह तकनीकी स्वीकृति अपेक्षित है।



कनीय अभियन्ता,  
ग्रामीण कार्य विभाग,  
कार्य प्रशाखा,  
कहलगौव



सहायक अभियन्ता,  
ग्रामीण कार्य विभाग,  
कार्य अवर प्रमण्डल  
कहलगौव



कार्यपालक अभियन्ता,  
ग्रामीण कार्य विभाग,  
कार्य प्रमण्डल कहलगौव

## Inspection Report For Flood Damage Work

क्रमांक ३

Date:- 10/12/2021

1. Name of PIUs - E.E. RWD works Division Khalgaun

2. Name of Block/ Road Khalgaun / RCD Road to Shankarpur Khawas (BR-06 R-016)

### A. For Road

1. Damage Location/Chainage 0.00 km to 1.700 km

2. Damage length 560 M

3. Nature of Damage Pot & Patch and side cutting

#### 4. Detail of Restoration Works

(i) Material being used in Restoration Works: Brick bats & GSB

(ii) Equipment's/ Tools Being used in Restoration Works:

(iii) Procedure Taken up in Restoration Works:

(iv) Restored Length: 560 M

### B. For Bridge

1. Damage Location/Chainage NA

2. Damage length

3. Nature of Damage

#### 4. Detail 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:

### C. Requirement Of New CD/Bridges NA

(i) Name of Road:

(ii) Location/ Chainage

(iii) Type of CD Work/Length required

### Notes:-

- 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.

Signature of JE/AE/EE

कार्यपालक अभियंता  
ग्रामीण कार्य विभाग  
काय प्रमंडल कहलगाँव

Signature

(Name of Inspector)

EE

RWD (w) Div

Banka-1

**GENERAL ABSTRACT OF COST**

Name of Road : RCD Road to Shankarpur Khawas (BR-06R-016)

District : Bhagalpur

Length (Km) : 4.931

Block : Khalgoun

| Sl. No | Particulars                           |   | Details (Km) | Total Cost (in Rs.)                     |
|--------|---------------------------------------|---|--------------|-----------------------------------------|
| 1      | Cost of Road Restoration work         | : |              | <sup>1088758 = 60</sup><br>4,126,419.00 |
| 2      | Add G.S.T @ 12 %                      | : |              | <sup>130651 = 00</sup><br>135,170.00    |
| 3      | Add L.C. @ 1 %                        | : |              | <sup>10887 = 00</sup><br>41,264.00      |
| 4      | S. F. @ 10 %                          | : |              | 63,050.00                               |
|        | <b>Total Cost of Restoration work</b> | : |              | <sup>1293346 = 00</sup><br>1,335,903.00 |
|        |                                       |   | Say,         | <b>-1,335,903.00</b>                    |

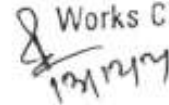
~~Say Rs. 13,35,903.00~~  
Say Rs. 12,93,346.00

  
J.E.

  
A.E.

  
E.E.

Technically Sanctioned for Rs. 13.359 lac (Rupees thirteen  
lac thirty five thousand nine hundred) only.

Superintending Engineer  
Rural Works Department  
Works Circle, Bhagalpur  


P.T.O.

Technically Sanctioned for Rs 12,93,740 = Rs (Rupees  
twelve Lac nearly three thousand three hundred  
seventy) only.

*[Signature]*  
24/12/21  
Superintending Engineer  
Rural Works Department  
Works Circle, Bhagalpur

# ESTIMATE FOR ROAD RESTORATION WORK

Name of Road: RCD Road to Shankarpur Khawas (BR-06R-016) Block: Khalgoun District: Bhagalpur Length : 4.931 Km

| Sl. No. | SSR Item No. | Description                                                                                                                                                                                                                                                                                                                                                                                       | No | Length (M) | Width (M) | H/D (M) | Qty.                                  | Unit | Rates (in Rs.) | Amount (in Rs.) |
|---------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|------------|-----------|---------|---------------------------------------|------|----------------|-----------------|
| 1       | 4.5          | Providing brick bats including spreading laying hand packing and compacting with C.I. Hammer in layers not exceeding 75 mm thick including cost of light, barriers, danger signals, chowkidar, taxes, royalty etc. all complete job as per specification and direction of E/I excluding carriage cost of bricks.                                                                                  |    |            |           |         |                                       |      |                |                 |
|         |              | As per attached " Annexure - A "                                                                                                                                                                                                                                                                                                                                                                  |    |            |           |         | 520.47                                |      | 1677.68        | 873182.00       |
|         |              |                                                                                                                                                                                                                                                                                                                                                                                                   |    |            |           |         | 520.47                                | Cum  | 4750.04        | 910,843.00      |
| 2       | 4.1 II       | Granular Sub-base with Well Graded Material (for Grading II Material)<br>Construction of granular sub-base by providing well graded material, spreading in uniform layers with motor grader 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. |    |            |           |         |                                       |      |                |                 |
|         |              | As per attached " Annexure - C "                                                                                                                                                                                                                                                                                                                                                                  |    |            |           |         | 115.80                                |      |                |                 |
|         |              |                                                                                                                                                                                                                                                                                                                                                                                                   |    |            |           |         | 115.80                                | Cum  | 1861.62        | 215,576.00      |
|         |              |                                                                                                                                                                                                                                                                                                                                                                                                   |    |            |           |         | Total Cost of Flood Protective work = |      |                | 1,126,419.00    |

*J. E.*

*A. E.*

*E. E.*

ANNEXURE - " A "

**Brick Bat Measurement**

Name of Road : RCD Road to Shankarpur Khawas (BR-06R-016)

Length (Km) : 4.931

| Sr. No. | Chainage (m) | Nos. | Length (m) | Width (m) |      |  | Average Width (m) | Depth (m) |      |  | Average Depth (m) | Quantity (Cum) |
|---------|--------------|------|------------|-----------|------|--|-------------------|-----------|------|--|-------------------|----------------|
| 1       | 300 - 400    | 3    | 12.00      | 2.80      | 1.50 |  | 2.15              | 0.50      |      |  | 0.50              | 38.70          |
| 2       |              | 2    | 2.00       | 1.50      |      |  | 1.50              | 0.50      |      |  | 0.50              | 3.00           |
| 3       | 400 - 500    | 4    | 3.50       | 2.20      | 1.00 |  | 1.60              | 0.30      |      |  | 0.30              | 6.72           |
| 4       |              | 2    | 6.50       | 2.00      |      |  | 2.00              | 0.20      |      |  | 0.20              | 5.20           |
| 5       |              | 6    | 4.00       | 2.00      |      |  | 2.00              | 0.30      |      |  | 0.30              | 14.40          |
| 6       | 500 - 600    | 3    | 4.00       | 2.10      | 1.00 |  | 1.55              | 0.10      |      |  | 0.10              | 1.86           |
| 7       | 600 - 700    | 1    | 9.00       | 1.50      |      |  | 1.50              | 0.10      |      |  | 0.10              | 1.35           |
| 8       |              | 1    | 11.00      | 1.00      | 2.80 |  | 1.90              | 1.80      | 0.60 |  | 1.20              | 25.08          |
| 9       |              | 1    | 18.00      | 1.10      | 2.90 |  | 2.00              | 1.70      | 0.80 |  | 1.25              | 45.00          |
| 10      |              | 1    | 15.00      | 1.00      | 2.75 |  | 1.88              | 1.60      | 0.60 |  | 1.10              | 31.02          |
| 11      |              | 1    | 12.00      | 0.80      | 1.80 |  | 1.30              | 1.40      | 0.45 |  | 0.93              | 14.51          |
| 12      |              | 1    | 12.00      | 2.00      |      |  | 2.00              | 0.50      |      |  | 0.50              | 12.00          |
| 13      |              | 1    | 4.00       | 3.00      |      |  | 3.00              | 0.30      |      |  | 0.30              | 3.60           |
| 14      | 700 - 800    | 1    | 1.00       | 2.00      |      |  | 2.00              | 0.30      |      |  | 0.30              | 0.60           |
| 15      |              | 1    | 0.50       | 0.50      |      |  | 0.50              | 0.10      |      |  | 0.10              | 0.03           |
| 16      |              | 1    | 42.00      | 1.00      | 2.30 |  | 1.65              | 1.80      | 0.60 |  | 1.20              | 83.16          |
| 17      |              | 1    | 16.00      | 0.80      | 1.80 |  | 1.30              | 1.65      | 0.45 |  | 1.05              | 21.84          |
| 18      |              | 1    | 9.00       | 2.00      |      |  | 2.00              | 0.50      |      |  | 0.50              | 9.00           |
| 19      |              | 2    | 15.00      | 0.50      |      |  | 0.50              | 1.00      |      |  | 1.00              | 15.00          |
| 20      | 800 - 900    | 4    | 3.00       | 2.00      |      |  | 2.00              | 0.30      |      |  | 0.30              | 7.20           |
| 21      |              | 2    | 1.50       | 1.50      |      |  | 1.50              | 0.30      |      |  | 0.30              | 1.35           |
| 22      |              | 3    | 1.00       | 2.50      |      |  | 2.50              | 0.30      |      |  | 0.30              | 2.25           |
| 23      | 900 - 1000   | 5    | 1.00       | 2.00      |      |  | 2.00              | 0.50      |      |  | 0.50              | 5.00           |
| 24      | 1000 - 1100  | 4    | 5.70       | 1.80      |      |  | 1.80              | 0.30      |      |  | 0.30              | 12.31          |
| 25      | 1100 - 1200  | 6    | 2.00       | 2.00      |      |  | 2.00              | 0.30      |      |  | 0.30              | 7.20           |

|    |             |   |       |      |      |  |      |      |  |  |                |               |
|----|-------------|---|-------|------|------|--|------|------|--|--|----------------|---------------|
| 26 |             | 2 | 3.00  | 2.50 |      |  | 2.50 | 0.30 |  |  | 0.30           | 4.50          |
| 27 |             | 4 | 3.00  | 1.50 |      |  | 1.50 | 0.50 |  |  | 0.50           | 9.00          |
| 28 | 1200 - 1300 | 3 | 2.50  | 1.00 |      |  | 1.00 | 0.30 |  |  | 0.30           | 2.25          |
| 29 |             | 2 | 3.00  | 2.00 |      |  | 2.00 | 0.30 |  |  | 0.30           | 3.60          |
| 30 |             | 4 | 2.00  | 3.00 |      |  | 3.00 | 0.50 |  |  | 0.50           | 12.00         |
| 31 | 1300 - 1400 | 2 | 13.00 | 3.00 |      |  | 3.00 | 0.30 |  |  | 0.30           | 23.40         |
| 32 |             | 5 | 1.20  | 1.80 |      |  | 1.80 | 0.50 |  |  | 0.50           | 5.40          |
| 33 | 1400 - 1500 | 4 | 3.50  | 3.20 | 3.00 |  | 3.10 | 0.50 |  |  | 0.50           | 21.70         |
| 34 |             | 1 | 2.00  | 1.20 |      |  | 1.20 | 0.30 |  |  | 0.30           | 0.72          |
| 35 |             | 2 | 0.50  | 3.00 |      |  | 3.00 | 0.30 |  |  | 0.30           | 0.90          |
| 36 | 1500 - 1600 | 3 | 2.50  | 2.50 | 2.50 |  | 2.50 | 0.30 |  |  | 0.30           | 5.63          |
| 37 |             | 2 | 4.00  | 1.00 | 1.20 |  | 1.10 | 0.30 |  |  | 0.30           | 2.64          |
| 38 |             | 4 | 4.00  | 1.00 | 1.20 |  | 1.10 | 0.30 |  |  | 0.30           | 5.28          |
| 39 | 1500 - 1600 | 2 | 4.00  | 1.00 | 1.20 |  | 1.10 | 0.30 |  |  | 0.30           | 2.64          |
| 40 |             | 1 | 4.00  | 1.00 | 1.20 |  | 1.10 | 0.30 |  |  | 0.30           | 1.32          |
| 41 |             | 3 | 4.00  | 1.00 | 1.20 |  | 1.10 | 0.30 |  |  | 0.30           | 3.96          |
| 42 | 1600 - 1700 | 4 | 4.00  | 1.00 | 1.20 |  | 1.10 | 0.30 |  |  | 0.30           | 5.28          |
| 43 |             | 2 | 26.00 | 2.80 | 2.50 |  | 2.65 | 0.30 |  |  | 0.30           | 41.34         |
| 44 |             | 2 | 3.00  | 0.50 | 1.20 |  | 0.85 | 0.30 |  |  | 0.30           | 1.53          |
|    |             |   |       |      |      |  |      |      |  |  | <b>Total =</b> | <b>520.47</b> |

|  |       |   |        |     |   |     |         |   |     |   |     |                  |
|--|-------|---|--------|-----|---|-----|---------|---|-----|---|-----|------------------|
|  | S. F. | - | 520.47 | Cum | @ | Rs, | 1051.00 | x | 10% | = | Rs. | <b>54,701.00</b> |
|--|-------|---|--------|-----|---|-----|---------|---|-----|---|-----|------------------|

  
J. E.

  
A. E.

E. E.



**ANNEXURE - " B "**

**Pot & Patch (GSB-II Materials)**

Name of Road : RCD Road to Shankarpur Khawas (BR-06R-016)

Length (Km) : 4.931

| Sr. No. | Chainage (m) | Nos. | Length (m) | Width (m) |      |  | Average Width (m) | Depth (m) |  |  | Average Depth (m) | Quantity (Cum) |
|---------|--------------|------|------------|-----------|------|--|-------------------|-----------|--|--|-------------------|----------------|
| 1       | 0 - 100      | 2    | 1.20       | 1.50      |      |  | 1.50              | 0.10      |  |  | 0.10              | 0.36           |
| 2       | 100 - 200    | 1    | 2.00       | 0.50      |      |  | 0.50              | 0.10      |  |  | 0.10              | 0.10           |
| 3       | 200 - 300    | 1    | 4.00       | 1.50      |      |  | 1.50              | 0.10      |  |  | 0.10              | 0.60           |
| 4       | 300 - 400    | 3    | 12.00      | 2.80      | 1.50 |  | 2.15              | 0.10      |  |  | 0.10              | 7.74           |
| 5       |              | 2    | 2.00       | 1.50      |      |  | 1.50              | 0.10      |  |  | 0.10              | 0.60           |
| 6       | 400 - 500    | 4    | 3.50       | 2.20      | 1.00 |  | 1.60              | 0.10      |  |  | 0.10              | 2.24           |
| 7       |              | 2    | 6.50       | 2.00      |      |  | 2.00              | 0.10      |  |  | 0.10              | 2.60           |
| 8       |              | 6    | 4.00       | 2.00      |      |  | 2.00              | 0.10      |  |  | 0.10              | 4.80           |
| 9       | 500 - 600    | 3    | 4.00       | 2.10      | 1.00 |  | 1.55              | 0.10      |  |  | 0.10              | 1.86           |
| 10      | 600 - 700    | 1    | 9.00       | 1.50      |      |  | 1.50              | 0.10      |  |  | 0.10              | 1.35           |
| 15      |              | 1    | 12.00      | 2.00      |      |  | 2.00              | 0.10      |  |  | 0.10              | 2.40           |
| 16      |              | 1    | 4.00       | 3.00      |      |  | 3.00              | 0.10      |  |  | 0.10              | 1.20           |
| 17      | 700 - 800    | 1    | 1.00       | 2.00      |      |  | 2.00              | 0.10      |  |  | 0.10              | 0.20           |
| 18      |              | 1    | 0.50       | 0.50      |      |  | 0.50              | 0.10      |  |  | 0.10              | 0.03           |
| 21      |              | 1    | 9.00       | 2.00      |      |  | 2.00              | 0.10      |  |  | 0.10              | 1.80           |
| 22      |              | 2    | 15.00      | 0.50      |      |  | 0.50              | 0.10      |  |  | 0.10              | 1.50           |
| 23      | 800 - 900    | 4    | 20.00      | 3.00      |      |  | 3.00              | 0.10      |  |  | 0.10              | 24.00          |
| 24      |              | 2    | 1.50       | 1.50      |      |  | 1.50              | 0.10      |  |  | 0.10              | 0.45           |
| 25      |              | 3    | 5.00       | 2.50      |      |  | 2.50              | 0.10      |  |  | 0.10              | 3.75           |
| 26      | 900 - 1000   | 5    | 1.00       | 2.00      |      |  | 2.00              | 0.10      |  |  | 0.10              | 1.00           |
| 27      | 1000 - 1100  | 4    | 5.70       | 1.80      |      |  | 1.80              | 0.10      |  |  | 0.10              | 4.10           |
| 28      | 1100 - 1200  | 6    | 2.00       | 2.00      |      |  | 2.00              | 0.10      |  |  | 0.10              | 2.40           |
| 29      |              | 2    | 10.00      | 3.75      |      |  | 3.75              | 0.10      |  |  | 0.10              | 7.50           |
| 30      |              | 4    | 3.00       | 1.50      |      |  | 1.50              | 0.10      |  |  | 0.10              | 1.80           |
| 31      | 1200 - 1300  | 3    | 2.50       | 1.00      |      |  | 1.00              | 0.10      |  |  | 0.10              | 0.75           |
| 32      |              | 2    | 3.00       | 2.00      |      |  | 2.00              | 0.10      |  |  | 0.10              | 1.20           |
| 33      |              | 4    | 2.00       | 3.00      |      |  | 3.00              | 0.10      |  |  | 0.10              | 2.40           |
| 34      | 1300 - 1400  | 2    | 13.00      | 3.00      |      |  | 3.00              | 0.10      |  |  | 0.10              | 7.80           |
| 35      |              | 5    | 1.20       | 1.80      |      |  | 1.80              | 0.10      |  |  | 0.10              | 1.08           |
| 36      | 1400 - 1500  | 4    | 3.50       | 3.20      | 3.00 |  | 3.10              | 0.10      |  |  | 0.10              | 4.34           |
| 37      |              | 1    | 2.00       | 1.20      |      |  | 1.20              | 0.10      |  |  | 0.10              | 0.24           |
| 38      |              | 2    | 0.50       | 3.00      |      |  | 3.00              | 0.10      |  |  | 0.10              | 0.30           |
| 39      | 1500 - 1600  | 3    | 2.50       | 2.50      | 2.50 |  | 2.50              | 0.10      |  |  | 0.10              | 1.88           |
| 40      |              | 2    | 4.00       | 1.00      | 1.20 |  | 1.10              | 0.10      |  |  | 0.10              | 0.88           |
| 41      |              | 4    | 4.00       | 1.00      | 1.20 |  | 1.10              | 0.10      |  |  | 0.10              | 1.76           |
| 42      |              | 2    | 4.00       | 1.00      | 1.20 |  | 1.10              | 0.10      |  |  | 0.10              | 0.88           |

|    |             |   |       |      |      |  |      |      |  |  |                |               |
|----|-------------|---|-------|------|------|--|------|------|--|--|----------------|---------------|
| 43 |             | 1 | 4.00  | 1.00 | 1.20 |  | 1.10 | 0.10 |  |  | 0.10           | 0.44          |
| 44 |             | 3 | 4.00  | 1.00 | 1.20 |  | 1.10 | 0.10 |  |  | 0.10           | 1.32          |
| 45 | 1600 - 1700 | 4 | 4.00  | 1.00 | 1.20 |  | 1.10 | 0.10 |  |  | 0.10           | 1.76          |
| 46 |             | 2 | 26.00 | 2.80 | 2.50 |  | 2.65 | 0.10 |  |  | 0.10           | 13.78         |
| 47 |             | 2 | 3.00  | 0.50 | 1.20 |  | 0.85 | 0.10 |  |  | 0.10           | 0.51          |
|    |             |   |       |      |      |  |      |      |  |  | <b>Total =</b> | <b>115.80</b> |

|  |       |   |        |     |   |     |        |   |     |   |     |                 |
|--|-------|---|--------|-----|---|-----|--------|---|-----|---|-----|-----------------|
|  | S. F. | - | 115.80 | Cum | @ | Rs, | 720.96 | x | 10% | = | Rs. | <b>8,349.00</b> |
|--|-------|---|--------|-----|---|-----|--------|---|-----|---|-----|-----------------|

  
J. E.

  
A. E.

  
E. E.

# Carriage Cost of Material via Road

RWD, works Division, Bhagalpur

| Name of Road : |                                   | RCD Road to Shankarpur Khawas (BR-06R-016) |              |                            |            | Block : Khaalgoun |          |                   |         |
|----------------|-----------------------------------|--------------------------------------------|--------------|----------------------------|------------|-------------------|----------|-------------------|---------|
| SI No          | Item                              | Unit                                       | Source       | Carriage Cost & Lead in Km |            |                   |          | Block : Khaalgoun | Total   |
|                |                                   |                                            |              | Pudla / Surface            |            | Katcha            |          | Carriage By Road  |         |
|                |                                   |                                            |              | 8.00                       | Rs 1080.63 | 8.00              | Rs 0.00  | 193.62            | 1274.25 |
| 1              | Stone Metal Gr-II/Via Road        | Cum                                        | Mirza Chenki | 7.47 x 183 Km              | =          | 8.00              | Rs 0.00  | 193.62            | 1274.25 |
| 2              | Stone Metal Gr-III / GSB Via Road | Cum                                        | Mirza Chenki | 7.47 x 183 Km              | =          | 8.00              | Rs 0.00  | 193.62            | 1187.62 |
| 3              | Stone Aggregate / Chips Via Road  | Cum                                        | Mirza Chenki | 7.47 x 183 Km              | =          | 8.00              | Rs 0.00  | 193.62            | 1187.62 |
| 4              | Stone Boulder /Via Road           | Cum                                        | Mirza Chenki | 7.47 x 183 Km              | =          | 8.00              | Rs 0.00  | 193.62            | 1226.97 |
| 5              | Coarse Sand/Via Road              | Cum                                        | Hannara      | 7.47 x 36 Km               | =          | 8.00              | Rs 0.00  | 104.88            | 536.01  |
| 6              | Mooram/Via Road                   | Cum                                        | Mirza Chenki | 7.47 x 183 Km              | =          | 8.00              | Rs 0.00  | 104.88            | 931.56  |
| 7              | Bitumen Barauni / Via Road        | MT                                         | Barauni      | 7.47 x 125 Km              | =          | 8.00              | Rs 0.00  | 365.00            | 1298.75 |
| 8              | Bitumen Emulsion /Via Road        | MT                                         | Fataha       | 7.47 x 212 Km              | =          | 8.00              | Rs 0.00  | 365.00            | 1948.64 |
| 9              | Local Sand                        | Cum                                        | Local        | 7.47 x 2 Km                | =          | 8.00              | Rs 0.00  | 104.88            | 157.83  |
| 10             | Brick                             | 1000 No/Local                              | Local        | 7.47 x 7 Km                | =          | 8.00              | Rs 72.36 | 441.62            | 723.14  |
| 11             | Cement                            | MT                                         | Local        | 7.47 x 7 Km                | =          | 8.00              | Rs 0.00  | 317.64            | 369.93  |
| 12             | Steel                             | MT                                         | Local        | 7.47 x 7 Km                | =          | 8.00              | Rs 0.00  | 337.70            | 389.99  |
| 13             | Hume Pipe (1000 mm )              | M                                          | Godda        | 7.47 x 68 Km               | =          | 8.00              | Rs 0.00  | 75.69             | 482.06  |
| 14             | Hume Pipe (600 mm )               | M                                          | Godda        | 7.47 x 68 Km               | =          | 8.00              | Rs 0.00  | 32.44             | 194.99  |
| 15             | Hume Pipe (300 mm )               | M                                          | Godda        | 7.47 x 68 Km               | =          | 8.00              | Rs 0.00  | 32.44             | 100.17  |
| 16             | Bamboo                            | Nos                                        | Kursela      | 7.47 x 42 Km               | =          | 8.00              | Rs 0.00  | 317.64            | 631.38  |
| 17             | Brick bats                        | Cum                                        | Local        | 7.47 x 7 Km                | =          | 8.00              | Rs 72.36 | 193.62            | 475.14  |
| 18             | Klin Rubbish                      | Cum                                        | Local        | 7.47 x 7 Km                | =          | 8.00              | Rs 72.36 | 104.88            | 386.40  |

25/11/21  
Junior Engineer

26/10/21  
Assistant Engineer

26/11/21  
Executive Engineer

### Rate Analysis

| SDB SL No.   | DESCRIPTION                                                                                                                                                                                                                             | Unit | QTY   | Rate     | Amount in Rs |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|----------|--------------|
| 4.5          | Providing and Laying of Brick Bats                                                                                                                                                                                                      |      |       |          |              |
|              | Placing tractor at loading point loading with front end loader dumping ,turning for return trip excluding time for haulage and return trip                                                                                              |      |       |          |              |
|              | Unit = cum                                                                                                                                                                                                                              |      |       |          |              |
|              | Taking output = 2.832 cum                                                                                                                                                                                                               |      |       |          |              |
| a)           | Labour                                                                                                                                                                                                                                  |      |       |          |              |
|              | Mazdoor (Unskilled)                                                                                                                                                                                                                     | day  | 2.17  | 292      | 633.64       |
| b)           | Materials                                                                                                                                                                                                                               |      |       |          |              |
|              | Brick Bats                                                                                                                                                                                                                              | cum  | 2.83  | 1,051.00 | 2974.33      |
| c)           | Carriage                                                                                                                                                                                                                                |      |       |          |              |
|              |                                                                                                                                                                                                                                         | cum  | 2.83  | 402.78   | 1139.87      |
|              | Cost for 5.5 cum = a+b+c                                                                                                                                                                                                                |      |       |          | 4747.84      |
|              | Rate per cum = (a+b+c+d)/2.83                                                                                                                                                                                                           | cum  |       |          | 1677.68      |
|              | Total per cum                                                                                                                                                                                                                           | cum  |       |          | 1,677.68     |
| 5.7.9        | Labour for fitting and fixing 62 mm to 75 mm dia bamboo runners in position at every verticle pile with 150 mm long nails or 38 swg G.I wire including cost of G.I. or nails complete job as per specification and direction of E/I     |      |       |          |              |
|              | Unit = Per mt.                                                                                                                                                                                                                          |      |       |          |              |
|              | Taking Out Put = 30.50 m                                                                                                                                                                                                                |      |       |          |              |
| (i)          | Materials                                                                                                                                                                                                                               |      |       |          |              |
|              | Cost of 150 mm long nails                                                                                                                                                                                                               | Kg   | 0.50  | 61.74    | 30.87        |
| (ii)         | Labour                                                                                                                                                                                                                                  |      |       |          |              |
|              | Carpenter Gr -II                                                                                                                                                                                                                        | No.  | 0.125 | 351      | 43.88        |
|              | Unskilled Labour                                                                                                                                                                                                                        | No.  | 0.25  | 292      | 73.00        |
|              | Rate for 30.5 m                                                                                                                                                                                                                         |      |       |          | 147.75       |
|              |                                                                                                                                                                                                                                         |      |       |          | 147.75       |
|              | Rate for 1 m                                                                                                                                                                                                                            |      |       |          | 4.84         |
| (iii)        | Bamboo(2nd class) 75mm dia, 1.8 - 2.5m long                                                                                                                                                                                             | m    | 1.00  | 23.58    | 23.58        |
|              | Rate per m                                                                                                                                                                                                                              |      |       | Say.     | 28.43        |
| 5.7.7        | Labour for cutting 62 mm to 75 mm dia bamboo piles in size and making shoes and driving etc. complete job as per specification and direction E/I                                                                                        |      |       |          |              |
|              | Unit = Per m                                                                                                                                                                                                                            |      |       |          |              |
|              | Taking Out Put = 30.50 m                                                                                                                                                                                                                |      |       |          |              |
|              | Assurning                                                                                                                                                                                                                               |      |       |          |              |
|              | 20 no pile sunk 1.525 m deeps                                                                                                                                                                                                           |      |       |          |              |
|              | Total depth sunk 30.50 m                                                                                                                                                                                                                |      |       |          |              |
| (i)          | Labour                                                                                                                                                                                                                                  |      |       |          |              |
|              | Carpenter Gr -II                                                                                                                                                                                                                        | No.  | 0.25  | 351      | 87.75        |
|              | Unskilled Labour for piling                                                                                                                                                                                                             | No.  | 2.50  | 292      | 730.00       |
|              |                                                                                                                                                                                                                                         |      |       |          | 817.75       |
|              | Rate for 30.5 m                                                                                                                                                                                                                         |      |       |          | 817.75       |
|              | Rate for 1 m                                                                                                                                                                                                                            |      |       |          | 26.81        |
| (ii)         | Bamboo(2nd class) 75mm dia, 1.8 - 2.5m long                                                                                                                                                                                             | m    | 1.00  | 23.58    | 23.58        |
|              | Rate per m                                                                                                                                                                                                                              |      |       | Say.     | 50.39        |
| 5.7.8<br>WRD | 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 |      |       |          |              |
|              | (Assuming strip of 3.05x3.05 = 9.30 sqm                                                                                                                                                                                                 |      |       |          |              |
|              | Unit = per sqm                                                                                                                                                                                                                          |      |       |          |              |
|              | Taking Out = 9.30 sqm                                                                                                                                                                                                                   |      |       |          |              |
| a            | Labour                                                                                                                                                                                                                                  |      |       |          |              |
|              | Carpenter Gr -II                                                                                                                                                                                                                        | No.  | 1.00  | 351      | 351.00       |
|              | Mazdoor (Unskilled) for pilling                                                                                                                                                                                                         | No.  | 1.00  | 292      | 292.00       |
| b            | Materials                                                                                                                                                                                                                               |      |       |          |              |
|              | 75 mm to 100 mm long nails                                                                                                                                                                                                              | kg   | 0.25  | 61.74    | 15.44        |
| c            | Bamboo(2nd class) 75mm dia, 1.8 - 2.5m long                                                                                                                                                                                             | m    | 11    | 23.58    | 259.42       |
|              |                                                                                                                                                                                                                                         |      |       |          | 917.85       |
|              | Rate Per Sqm = (a+b+c)/9.30                                                                                                                                                                                                             |      |       |          | 98.69        |

|                |                                                                                                                                                                                                                                                                                                                          |          |        |                  |                  |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------|------------------|------------------|
| <b>10.7.40</b> | <b>Supply of Material and Labour for filling Cement Bag, swing and laying materials Unit = Per Bag</b>                                                                                                                                                                                                                   |          |        |                  |                  |
| <b>A</b>       | Supply Empty cement Bag with Sand                                                                                                                                                                                                                                                                                        | No       | 100    | 2.92             | 292.00           |
|                | Stitching Roll (Nylon)                                                                                                                                                                                                                                                                                                   | No       | 2      | 30.00            | 60.00            |
|                | Supply Local Sand                                                                                                                                                                                                                                                                                                        | Cum      | 3.40   | 141.85           | 482.29           |
|                |                                                                                                                                                                                                                                                                                                                          |          |        | <b>Total (A)</b> | <b>834.29</b>    |
| <b>B</b>       | Unskilled Labour for filling stitching and staking                                                                                                                                                                                                                                                                       | No       | 1.67   | 292              | 487.64           |
|                | Unskilled Labour for carrying and Placing at work site                                                                                                                                                                                                                                                                   | No       | 3      | 292              | 876.00           |
|                | Skilled Labour for stitching                                                                                                                                                                                                                                                                                             | No       | 0.33   | 370              | 122.10           |
|                | <b>Total per bag</b>                                                                                                                                                                                                                                                                                                     |          |        | <b>Total (B)</b> | <b>1,485.74</b>  |
| <b>C</b>       | Hire charge of Machine                                                                                                                                                                                                                                                                                                   |          |        |                  |                  |
|                | Hire charge of Stitching Machine                                                                                                                                                                                                                                                                                         | No       | 0.33   | 50               | 16.50            |
|                | Hire charge of Generator 3 K.V.A                                                                                                                                                                                                                                                                                         | No       | 2.67   | 74               | 197.58           |
|                | <b>Total per bag</b>                                                                                                                                                                                                                                                                                                     |          |        | <b>Total (C)</b> | <b>214.08</b>    |
| <b>D</b>       | Carriage Cost of Local Sand                                                                                                                                                                                                                                                                                              |          |        |                  |                  |
|                | 1.2 Cft = 0.034 m <sup>3</sup>                                                                                                                                                                                                                                                                                           | cum      | 3.40   | 157.83           | 536.64           |
|                |                                                                                                                                                                                                                                                                                                                          |          |        | <b>Total (D)</b> | <b>536.64</b>    |
|                | <b>Total cost of (A+B+C+D) =</b>                                                                                                                                                                                                                                                                                         | Bag      |        |                  | <b>3,070.75</b>  |
|                | <b>Rate per Bag</b>                                                                                                                                                                                                                                                                                                      |          |        |                  | <b>30.71</b>     |
| <b>4.1</b>     | <b>Granular Sub-base with Well Graded Material (Table 400.1)</b><br>( By mix in place method ) For Grading II Material                                                                                                                                                                                                   |          |        |                  |                  |
|                | Construction of granular sub-base by providing well graded material, spreading in uniform layers with motor grader 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. |          |        |                  |                  |
| <b>(ii)</b>    | <b>For Grading II Material</b>                                                                                                                                                                                                                                                                                           |          |        |                  |                  |
|                | Unit = cum                                                                                                                                                                                                                                                                                                               |          |        |                  |                  |
|                | Taking output = 300 cum                                                                                                                                                                                                                                                                                                  |          |        |                  |                  |
| <b>a)</b>      | <b>Labour</b>                                                                                                                                                                                                                                                                                                            |          |        |                  |                  |
|                | Mate                                                                                                                                                                                                                                                                                                                     | day      | 0.40   | 304.00           | 121.60           |
|                | Mazdoor (Skilled)                                                                                                                                                                                                                                                                                                        | day      | 2.00   | 370.00           | 740.00           |
|                | Mazdoor (Unskilled)                                                                                                                                                                                                                                                                                                      | day      | 8.00   | 292.00           | 2336.00          |
| <b>b)</b>      | <b>Machinery</b>                                                                                                                                                                                                                                                                                                         |          |        |                  |                  |
|                | Tractor mounted grader arrangement for grading @ 100 cum per hour                                                                                                                                                                                                                                                        | hour     | 12.00  | 573.20           | 6878.40          |
|                | Three wheel 80-100 kN static roller @ 10 cum per hour                                                                                                                                                                                                                                                                    | hour     | 12.00  | 803.00           | 9636.00          |
|                | 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           |
| <b>c)</b>      | <b>Material</b>                                                                                                                                                                                                                                                                                                          |          |        |                  |                  |
|                | Well graded granular sub-base material as per Table 400.1                                                                                                                                                                                                                                                                |          |        |                  |                  |
|                | 26.5 mm to 9.5 mm @ 35 per cent                                                                                                                                                                                                                                                                                          | cum      | 134.40 | 604.91           | 81299.90         |
|                | 9.5 mm to 2.36 mm @ 25 per cent                                                                                                                                                                                                                                                                                          | cum      | 96.00  | 582.80           | 55948.80         |
|                | 2.36 mm below @ 40 per cent - Local Sand                                                                                                                                                                                                                                                                                 | cum      | 153.60 | 514.58           | 79039.49         |
|                | Water                                                                                                                                                                                                                                                                                                                    | kl       | 30.00  | 40.00            | 1200.00          |
|                | <b>Cost of GSB for 300 cum</b>                                                                                                                                                                                                                                                                                           |          |        |                  | <b>244998.59</b> |
|                | <b>A) Cost of GSB without carriage per cum</b>                                                                                                                                                                                                                                                                           | cum      |        |                  | <b>816.66</b>    |
| <b>e)</b>      | <b>CARRIAGE</b>                                                                                                                                                                                                                                                                                                          |          |        |                  |                  |
|                | Carriage for GSB material                                                                                                                                                                                                                                                                                                | Cum      | 0.768  | 816.37           | 626.97           |
|                | Carriage for material below 2.36 mm (Local Sand)                                                                                                                                                                                                                                                                         | Cum      | 0.512  | 816.37           | 417.98           |
|                | <b>Rate per cum with carriage</b>                                                                                                                                                                                                                                                                                        |          |        |                  | <b>1861.61</b>   |
| <b>9.3</b>     | <b>Providing and Laying Reinforced Cement Concrete Pipe NP3 as per design in Single Row</b>                                                                                                                                                                                                                              |          |        |                  |                  |
| <b>1100</b>    | 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 works in head walls and parapets Clause 1106.               |          |        |                  |                  |
| <b>A.</b>      | <b>1000 MM DIA (Double Row)</b>                                                                                                                                                                                                                                                                                          |          |        |                  |                  |
| <b>a)</b>      | <b>Material</b>                                                                                                                                                                                                                                                                                                          |          |        |                  |                  |
|                | RCC NP3 pipe including collar                                                                                                                                                                                                                                                                                            | m        | 15.00  | 2755.50          | 41332.50         |
| <b>b)</b>      | <b>Labour</b>                                                                                                                                                                                                                                                                                                            |          |        |                  |                  |
|                | Mate                                                                                                                                                                                                                                                                                                                     | day      | 0.22   | 304.00           | 66.88            |
|                | Mason ( 1st class )                                                                                                                                                                                                                                                                                                      | day      | 0.60   | 351.00           | 210.60           |
|                | Mazdoor ( Unskilled )                                                                                                                                                                                                                                                                                                    | day      | 4.80   | 292.00           | 1401.60          |
|                | <b>Cost for 7.5m = ( a+b+c)</b>                                                                                                                                                                                                                                                                                          |          |        |                  | <b>43011.58</b>  |
|                | <b>A) Basic Cost per m = (a+b+c+d)/7.5</b>                                                                                                                                                                                                                                                                               | m        |        |                  | <b>5734.88</b>   |
|                | <b>CARRIAGE COST</b>                                                                                                                                                                                                                                                                                                     |          |        |                  |                  |
|                | NP3 Pipe                                                                                                                                                                                                                                                                                                                 | m        | 15.00  | 482.06           | 7230.90          |
|                | Carriage cost of 7.5 m                                                                                                                                                                                                                                                                                                   |          |        |                  | 7230.90          |
|                | <b>B) Carriage cost per m</b>                                                                                                                                                                                                                                                                                            | m        |        |                  | <b>964.12</b>    |
|                | <b>Rate per m = (A+B)</b>                                                                                                                                                                                                                                                                                                | <b>m</b> |        |                  | <b>6699.00</b>   |

|           |                                        |     |      |         |          |
|-----------|----------------------------------------|-----|------|---------|----------|
| <b>B.</b> | <b>1000 MM DIA (Single Row)</b>        |     |      |         |          |
| <b>a)</b> | <b>Material</b>                        |     |      |         |          |
|           | RCC NP3 pipe including collar          | m   | 7.50 | 2755.50 | 20666.25 |
| <b>b)</b> | <b>Labour</b>                          |     |      |         |          |
|           | Mate                                   | day | 0.09 | 304.00  | 27.36    |
|           | Mason ( 1st class )                    | day | 0.25 | 351.00  | 87.75    |
|           | Mazdoor ( Unskilled )                  | day | 2.00 | 292.00  | 584.00   |
|           | Cost for 7.5m = ( a+b+c)               |     |      |         | 21365.36 |
|           | <b>A) Basic Cost per m = (a+b)/7.5</b> | m   |      |         | 2848.71  |
|           | <b>CARRIAGE COST</b>                   |     |      |         |          |
|           | NP3 Pipe                               | m   | 7.50 | 422.30  | 3167.25  |
|           | Carriage cost of 7.5 m                 |     |      |         | 3167.25  |
|           | <b>B) Carriage cost per m</b>          | m   |      |         | 422.30   |
|           | <b>Rate per m = (A+B)</b>              | m   |      |         | 3271.01  |
| <b>C.</b> | <b>600 MM DIA (Double Row)</b>         |     |      |         |          |
| <b>a)</b> | <b>Material</b>                        |     |      |         |          |
|           | RCC NP3 pipe including collar          | m   | 15   | 1582.72 | 23740.80 |
| <b>b)</b> | <b>Labour</b>                          |     |      |         |          |
|           | Mate                                   | day | 0.04 | 304.00  | 12.16    |
|           | Mason ( 1st class )                    | day | 0.12 | 351.00  | 42.12    |
|           | Mazdoor ( Unskilled )                  | day | 0.96 | 292.00  | 280.32   |
|           | Cost of 7.5m = (a+b+c+d)               |     |      |         | 24075.40 |
|           | <b>A) Basic Cost per m = (a+b)/7.5</b> | m   |      |         | 3210.05  |
|           | <b>CARRIAGE COST</b>                   |     |      |         |          |
|           | NP3 Pipe                               | m   | 15   | 171.08  | 2566.20  |
|           | Carriage cost of 7.5 m                 |     |      |         | 2566.20  |
|           | <b>B) Carriage cost per m</b>          | m   |      |         | 342.16   |
|           | <b>Rate per m = (A+B)</b>              | m   |      |         | 3552.21  |
| <b>D.</b> | <b>600 MM DIA (Single Row)</b>         |     |      |         |          |
| <b>a)</b> | <b>Material</b>                        |     |      |         |          |
|           | RCC NP3 pipe including collar          | m   | 7.50 | 1582.72 | 11870.40 |
| <b>b)</b> | <b>Labour</b>                          |     |      |         |          |
|           | Mate                                   | day | 0.04 | 304.00  | 12.16    |
|           | Mason ( 1st class )                    | day | 0.12 | 351.00  | 42.12    |
|           | Mazdoor ( Unskilled )                  | day | 0.96 | 292.00  | 280.32   |
|           | Cost of 7.5m = (a+b+c+d)               |     |      |         | 12205.00 |
|           | <b>A) Basic Cost per m = (a+b)/7.5</b> | m   |      |         | 1627.33  |
|           | <b>CARRIAGE COST</b>                   |     |      |         |          |
|           | NP3 Pipe                               | m   | 7.5  | 171.08  | 1283.10  |
|           | Carriage cost of 7.5 m                 |     |      |         | 1283.10  |
|           | <b>B) Carriage cost per m</b>          | m   |      |         | 171.08   |
|           | <b>Rate per m = (A+B)</b>              | m   |      |         | 1798.41  |