



# ग्रामीण कार्य विभाग

Rural Works Department, Govt of Bihar

## DETAILED PROJECT REPORT FOR REPAIRING OF ROAD F.D.R. PART - A (2021 - 22)

### DETAILED ESTIMATE For F.D.R. Motrable Work

T. A. COPY

|                                                                                              |                                  |          |           |
|----------------------------------------------------------------------------------------------|----------------------------------|----------|-----------|
| DISTRICT :                                                                                   | BHAGALPUR                        | BLOCK :  | Pirpainti |
| NAME OF ROAD :                                                                               | L021-Madhopur T01 to Parsurampur |          |           |
| Total Length of road                                                                         | :                                | 1.530 KM |           |
| Total Cost of FDR - (Part A)                                                                 | :                                | 4.63     | Lakh      |
| GST @ 12 %                                                                                   | :                                | 0.56     | Lakh      |
| LABOUR CESS @ 1 %                                                                            | :                                | 0.05     | Lakh      |
| SEIGNIORAGE FEE @ 10 %                                                                       | :                                | 0.28     | Lakh      |
| TOTAL COST OF RESTORATION WORK                                                               | :                                | 5.51     | Lakh      |
| SUBMITTED BY<br>The Executive Engineer<br>Rural Work Department<br>Works Division, Kahalgaon |                                  |          |           |

## प्रतिवेदन

योजना का नाम – " L021-Madhampur T01 to Parsurampur" पथ में बाढ़ से क्षतिग्रस्त भाग का मोटरेबुल कार्य।  
पथ की लम्बाई – 1.530 कि०मी०  
प्राक्कलित राशि – रु० 5.51224 लाख

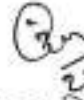
वर्ष 2021 में गंगा नदी में आयी भयंकर बाढ़ से ग्रामीण कार्य विभाग, कार्य प्रमण्डल, कहलगाँव अन्तर्गत पीरपैती/कहलगाँव/सबौर एवं सन्हौला प्रखण्ड के लगभग 89 पथ /पुल बाढ़ से प्रभावित हुये हैं। इनमें कुछ पथों में कटाव/गड्ढे हो जाने के कारण विभाग द्वारा समय-समय पर प्राप्त दिशा निर्देशों /आदेशों के आलोक में तत्काल 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।

  
25/10/21

कनीय अभियन्ता,  
ग्रामीण कार्य विभाग,  
कार्य प्रशाखा, पीरपैती

  
25/10/21

सहायक अभियन्ता,  
ग्रामीण कार्य विभाग,  
कार्य अवर प्रमण्डल पीरपैती

  
25/10/21

कार्यपालक अभियन्ता,  
ग्रामीण कार्य विभाग,  
कार्य प्रमण्डल कहलगाँव

## Inspection Report For Flood Damage Work

4/2/21

Date:- 10/12/2021

1. Name of PIUs - EE, RWD (W) Division, Kahalgaon.

2. Name of Block/ Road Pirpanti / LO 21 Madhopur To Parsurampur.

### A. For Road

1. Damage Location/Chainage ch 0.120 to 0.850 km.

2. Damage length 158m

3. Nature of Damage Cutting and pot-holes.

4. Detail of Restoration Works

(i) Material being used in Restoration Works: brick-bats

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

(iii) Procedure Taken up in Restoration Works:

(iv) Restored Length: 158m in cutting and pot-holes

### B. For Bridge

1. Damage Location/Chainage

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

(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

JE

AE

कार्यपालक अभियंता

ग्रामीण कार्य विभाग

कार्य प्रमंडल बल्लियाँ

Signature

(Name of Inspector)

EE

RWD (W) Div.

Banka-1

# GENERAL ABSTRACT OF COST

Name of Road : L021-Madhampur T01 to Parsurampur

District : BHAGALPUR

Length of Road : 1.530 KM

Block : Pirpainti

| Sl. No | Particulars                    |   | Details | Total Cost (in Rs.)                                  |
|--------|--------------------------------|---|---------|------------------------------------------------------|
| A      | Cost of Road Motorable work    | : | 1.53    | <del>4,63,201.00</del><br>4,63,182.00<br>4,44,048.00 |
| B      | GST @12%                       | : |         | <del>55,584.44</del><br>55,583.04<br>5,32,86.00      |
| C      | Labour Cess @ 1%               | : |         | <del>4,632.00</del><br>4,631.92<br>4440.00           |
| D      | Seigniorage Fee @10%           | : |         | 27,817.34                                            |
|        | Total Cost of Restoration work | : |         | <del>5,51,824.34</del><br>5,51,224.30<br>5,29,591.00 |
|        |                                |   | SAY     | <del>5,51,824.00</del><br>5,51,224.00                |

say Rs. 5,29,600.00

*J. E.*  
25-10-2021

*A. E.*  
26/10/21

*E. E.*  
27/10/21

Technically Sanction for Rs 5,51,200.20 (Rupees five lac fifty one thousand two hundred) only.

Superintending Engineer  
Rural Works Department  
Works Circle, Bhagalpur

*12/11/21*

P.T.O

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Technically sanctioned for Rs 5,29,600/- (Rupees  
five lac twenty nine thousand six hundred) only.

*[Signature]*

Superintending Engineer  
Rural Works Department  
Works Circle, Bhagalpur

L021-Madhapur T01 to Parsurampur (VR4)

Brick-Bats Details

Annexure- A

| Chainage    | No. | Length<br>(in m) | Width<br>(in m)         | Depth<br>(in m) | Qty<br>(in Cum) |
|-------------|-----|------------------|-------------------------|-----------------|-----------------|
| <u>120m</u> | 1 x | 7.00             | $\frac{2.20 + 2.20}{2}$ | 1.50            | = 23.10         |
|             | 1 x | 20.00            | $\frac{1.20 + 1.20}{2}$ | 2.00            | = 48.00         |
|             | 1 x | 10.00            | $\frac{2.50 + 2.50}{2}$ | 1.50            | = 37.50         |
| <u>550m</u> | 1 x | 10.00            | $\frac{3.75 + 3.75}{2}$ | 0.30            | = 11.25         |
|             | 1 x | 20.00            | $\frac{2.00 + 2.00}{2}$ | 0.30            | = 12.00         |
|             | 1 x | 5.00             | $\frac{3.75 + 3.75}{2}$ | 0.30            | = 5.63          |
| <u>700m</u> | 1 x | 20.00            | $\frac{1.20 + 1.20}{2}$ | 2.00            | = 48.00         |
| <u>850m</u> | 1 x | 66.00            | $\frac{1.20 + 1.20}{2}$ | 1.00            | = 79.20         |
| Total       |     |                  |                         |                 | = 264.68 cum    |

*Handwritten signature*  
25/10/2021  
J-E

*Handwritten signature*  
25/10/21  
R-E

*Handwritten signature*  
25/10/21

# Carriage Cost of Material via Road

RWD, works Division, Kahalgaon

District:- BHAGALPUR

Division - Kahalgaon

| Sl No | Item                              | Unit     | Source        | Carriage Cost & Lead in Km |               | Katcha     |               | Loading & Unloading Cost | Carriage By Road | Carriage By Rail | Total   | Lowest Rate |
|-------|-----------------------------------|----------|---------------|----------------------------|---------------|------------|---------------|--------------------------|------------------|------------------|---------|-------------|
|       |                                   |          |               | Pukka / Surface            |               |            |               |                          |                  |                  |         |             |
| 1     | Stone Metal Gr-II/Via Road        | Cum      | Mirza Cheukhi | 8.00<br>4.59               | 8.00<br>4.59  | Rs 677.02  | 8.00<br>4.59  | Rs 0.00                  | 870.64           | 0.00             | 870.64  | 870.64      |
| 2     | Stone Metal Gr-III / CSB Via Road | Cum      | Mirza Cheukhi | 8.00<br>4.99               | 8.00<br>4.99  | Rs 622.75  | 8.00<br>4.99  | Rs 0.00                  | 816.37           | 0.00             | 816.37  | 816.37      |
| 3     | Stone Aggregate / Chips Via Road  | Cum      | Mirza Cheukhi | 8.00<br>4.99               | 8.00<br>4.99  | Rs 622.75  | 8.00<br>4.99  | Rs 0.00                  | 816.37           | 0.00             | 816.37  | 816.37      |
| 4     | Stone Boulder /Via Road           | Cum      | Mirza Cheukhi | 8.00<br>4.80               | 8.00<br>4.80  | Rs 647.40  | 8.00<br>4.80  | Rs 0.00                  | 841.02           | 0.00             | 841.02  | 841.02      |
| 5     | Coarse Sand/Via Road              | Cum      | Hanwara       | 8.00<br>4.99               | 8.00<br>4.99  | Rs 431.13  | 8.00<br>4.99  | Rs 0.00                  | 536.01           | 0.00             | 536.01  | 536.01      |
| 6     | Mouram/Via Road                   | Cum      | Mirza Cheukhi | 8.00<br>6.00               | 8.00<br>6.00  | Rs 517.92  | 8.00<br>6.00  | Rs 0.00                  | 622.80           | 0.00             | 622.80  | 622.80      |
| 7     | Bitumen Baranvi/Via Road          | MT       | Baranvi       | 8.00<br>8.00               | 8.00<br>8.00  | Rs 433.75  | 8.00<br>8.00  | Rs 0.00                  | 1298.75          | 0.00             | 1298.75 | 1298.75     |
| 8     | Bitumen Emulsion /Via Road        | MT       | Fatuha        | 8.00<br>8.00               | 8.00<br>8.00  | Rs 1503.64 | 8.00<br>8.00  | Rs 0.00                  | 1948.64          | 0.00             | 1948.64 | 1948.64     |
| 9     | Local Sand                        | Cum      | Local         | 8.00<br>4.99               | 8.00<br>4.99  | Rs 23.95   | 8.00<br>4.99  | Rs 29.00                 | 157.83           | 0.00             | 157.83  | 157.83      |
| 10    | Brick                             | 1000 Nos | Local         | 8.00<br>2.00               | 8.00<br>2.00  | Rs 209.16  | 8.00<br>2.00  | Rs 72.36                 | 723.14           | 0.00             | 723.14  | 723.14      |
| 11    | Cement                            | MT       | Local         | 8.00<br>8.00               | 8.00<br>8.00  | Rs 52.29   | 8.00<br>8.00  | Rs 0.00                  | 369.93           | 0.00             | 369.93  | 369.93      |
| 12    | Steel                             | MT       | Local         | 8.00<br>8.00               | 8.00<br>8.00  | Rs 52.29   | 8.00<br>8.00  | Rs 0.00                  | 389.99           | 0.00             | 389.99  | 389.99      |
| 13    | Hume Pipe (1600 mm )              | M        | Godda         | 8.00<br>10.00              | 8.00<br>10.00 | Rs 346.61  | 8.00<br>10.00 | Rs 0.00                  | 422.30           | 0.00             | 422.30  | 422.30      |
| 14    | Hume Pipe (600 mm )               | M        | Godda         | 8.00<br>25.00              | 8.00<br>25.00 | Rs 138.64  | 8.00<br>25.00 | Rs 0.00                  | 171.08           | 0.00             | 171.08  | 171.08      |
| 15    | Hume Pipe (300 mm )               | M        | Godda         | 8.00<br>60.00              | 8.00<br>60.00 | Rs 57.77   | 8.00<br>60.00 | Rs 0.00                  | 90.21            | 0.00             | 90.21   | 90.21       |
| 16    | Bamboo                            | Nos      | Kursela       | 8.00<br>8.00               | 8.00<br>8.00  | Rs 313.74  | 8.00<br>8.00  | Rs 0.00                  | 369.93           | 0.00             | 369.93  | 369.93      |
| 17    | Brick bats                        | Cum      | Local         | 8.00<br>2.00               | 8.00<br>2.00  | Rs 299.16  | 8.00<br>2.00  | Rs 72.36                 | 870.64           | 0.00             | 870.64  | 870.64      |
| 18    | Klin Rubbish                      | Cum      | Local         | 8.00<br>2.00               | 8.00<br>2.00  | Rs 209.16  | 8.00<br>2.00  | Rs 72.36                 | 157.83           | 0.00             | 157.83  | 157.83      |

\* Subjected to Verification of Lead

Cost Of Haulage Excluding Loading & Unloading As Per SOR

| Type of Road        | Per Ton, Km By Tipper | Per Ton, Km By |
|---------------------|-----------------------|----------------|
| For Surface Road    | 8.19                  | 7.47           |
| For Un Surface Road | 8.85                  | 8.99           |
| For Kachhu Road     | 19.62                 | 18.09          |

25-10-2021  
Junior Engineer

25-10-2021  
Asstt. Engineer

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  | 462.76   | 1139.87      |
|              | Cost for 5.5 cum = a+b+c                                                                                                                                                                                                                |      |       |          | 4747.84      |
|              | Rate per cum = (a+b+c+d)/2.83                                                                                                                                                                                                           | cum  |       |          | 1677.63      |
|              | 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 vertical 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   | 6.50  | 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                                                                                                                                                                                                                |      |       |          |              |
|              | Assuming                                                                                                                                                                                                                                |      |       |          |              |
|              | 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 3.85x3.85 = 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 piling                                                                                                                                                                                                          | 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        |



|                |                                                                                                                                                                                                                                                                                                                          |                            |        |                  |                  |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|--------|------------------|------------------|
| 19.7.40<br>WRD | Supply of Material and Labour for filling Cement Bag, riving and laying materials Unit = Per Bag                                                                                                                                                                                                                         |                            |        |                  |                  |
| A              | Supply Empty cement Bag with Sead                                                                                                                                                                                                                                                                                        | No                         | 100    | 2.92             | 292.00           |
|                | Stiching 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              | 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           |
|                | Total per bag                                                                                                                                                                                                                                                                                                            |                            |        | <b>Total (B)</b> | <b>1,485.74</b>  |
| C              | Hire charge of Machine                                                                                                                                                                                                                                                                                                   |                            |        |                  |                  |
|                | Hire charge of Stiching Machine                                                                                                                                                                                                                                                                                          | No                         | 0.33   | 50               | 16.50            |
|                | Hire charge of Generator 3 K.V.A                                                                                                                                                                                                                                                                                         | No                         | 2.67   | 74               | 197.58           |
|                | Total per bag                                                                                                                                                                                                                                                                                                            |                            |        | <b>Total (C)</b> | <b>214.08</b>    |
| D              | 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>    |
|                | Total cost of (A+B+C+D) =                                                                                                                                                                                                                                                                                                | Bag                        |        |                  | 3,076.75         |
|                |                                                                                                                                                                                                                                                                                                                          | Rate per Bag               |        |                  | <b>30.71</b>     |
| 4.1            | Granular Sub-base with Well Graded Material (Table 400.1)<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. |                            |        |                  |                  |
| (ii)           | For Grading II Material                                                                                                                                                                                                                                                                                                  |                            |        |                  |                  |
|                | Unit = cum                                                                                                                                                                                                                                                                                                               |                            |        |                  |                  |
|                | Taking output = 300 cum                                                                                                                                                                                                                                                                                                  |                            |        |                  |                  |
| a)             | Labour                                                                                                                                                                                                                                                                                                                   |                            |        |                  |                  |
|                | 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)             | Machinery                                                                                                                                                                                                                                                                                                                |                            |        |                  |                  |
|                | 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           |
| c)             | Material                                                                                                                                                                                                                                                                                                                 |                            |        |                  |                  |
|                | 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           | 79039.68         |
|                | Water                                                                                                                                                                                                                                                                                                                    | kl                         | 30.00  | 40.00            | 1200.00          |
|                | Cost of GSB for 300 cum                                                                                                                                                                                                                                                                                                  |                            |        |                  | <b>244998.59</b> |
|                | A) Cost of GSB without carriage per cum                                                                                                                                                                                                                                                                                  | cum                        |        |                  | <b>816.66</b>    |
| e)             | CARRIAGE                                                                                                                                                                                                                                                                                                                 |                            |        |                  |                  |
|                | 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           |
|                |                                                                                                                                                                                                                                                                                                                          | Rate per cum with carriage |        |                  | <b>1861.61</b>   |
| 9.3            | Providing and Laying Reinforced Cement Concrete Pipe NP3 as per design in Single Row                                                                                                                                                                                                                                     |                            |        |                  |                  |
| 1100           | 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 1105.               |                            |        |                  |                  |
| A.             | 1000 MM DIA (Double Row)                                                                                                                                                                                                                                                                                                 |                            |        |                  |                  |
| a)             | Material                                                                                                                                                                                                                                                                                                                 |                            |        |                  |                  |
|                | RCC NP3 pipe including collar                                                                                                                                                                                                                                                                                            | m                          | 15.00  | 2755.50          | 41332.50         |
| b)             | Labour                                                                                                                                                                                                                                                                                                                   |                            |        |                  |                  |
|                | 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          |
|                | Cost for 7.5m = ( a+b+c)                                                                                                                                                                                                                                                                                                 |                            |        |                  | 4301.58          |
|                | A) Basic Cost per m = (a+b+c+d)/7.5                                                                                                                                                                                                                                                                                      | m                          |        |                  | <b>5734.88</b>   |
|                | CARRIAGE COST                                                                                                                                                                                                                                                                                                            |                            |        |                  |                  |
|                | NP3 Pipe                                                                                                                                                                                                                                                                                                                 | m                          | 15.00  | 482.06           | 7230.90          |
|                | Carriage cost of 7.5 m                                                                                                                                                                                                                                                                                                   |                            |        |                  | 7230.90          |
|                | B) Carriage cost per m                                                                                                                                                                                                                                                                                                   | m                          |        |                  | <b>964.12</b>    |
|                |                                                                                                                                                                                                                                                                                                                          | Rate per m = (A+B)         | m      |                  | <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 |
|           | A) Basic Cost per m = (a+b)/7.5 | 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) Carriage cost per m          | m   |      |         | 422.30   |
|           | Rate per m = (A+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 |
|           | A) Basic Cost per m = (a+b)/7.5 | m   |      |         | 3210.69  |
|           | <b>CARRIAGE COST</b>            |     |      |         |          |
|           | NP3 Pipe                        | m   | 15   | 171.08  | 2566.20  |
|           | Carriage cost of 7.5 m          |     |      |         | 2566.20  |
|           | B) Carriage cost per m          | m   |      |         | 342.16   |
|           | Rate per m = (A+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 |
|           | A) Basic Cost per m = (a+b)/7.5 | 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) Carriage cost per m          | m   |      |         | 171.08   |
|           | Rate per m = (A+B)              | m   |      |         | 1798.41  |