

Rural Works Department, Govt of Bihar

# FDR

**PLAN HEAD FDR(2245)**  
**(2020-2021)**



### MOTORABLE OF ROAD FROM NH-19 TO HARIJAN TOLA.

|                            |    |              |     |
|----------------------------|----|--------------|-----|
| DISTRICT                   | :- | Saran        |     |
| DIVISION                   | :- | Chapra-1     |     |
| BLOCK                      | :- | Chapra Sadar |     |
| TOTAL LENGTH OF ROAD       | :- | 0.850        | KM  |
| TOTAL COST OF CONSTRUCTION | :- | 6.001        | Lac |
| TOTAL COST OF PROJECT      | :- | 6.001        | Lac |

## FDR(2020-2021)

### प्रतिवेदन

पथ का नाम:- NH-19 To Harijan Tola.

पथ की लम्बाई:- 0.850 KM

प्राक्कलित राशि:- 600128 रु

प्रखंड:- छपरा सदर

जिला:-सारण

प्रस्तुत प्राक्कलन ग्रामीण कार्य विभाग कार्य प्रमंडल छपरा-1 के अंतर्गत बाढ़ से क्षतिग्रस्त पथों के मोटरेबुल कार्य प्राक्कलन विभाग के निर्देशानुसार तैयार किया गया है।

विदित है कि माह जूलाई एवं सितम्बर

2020 में गंडक नदी के बांध के टूटने एवं अतिवृष्टि के कारण आयी बाढ़ के कारण निर्मित/निर्माणाधीन पथों में काफी क्षति हुई है। पानी के तेज बहाव के कारण पथों में हुई कटाव से आवागमन प्रभावित हुआ है साथ ही दिनांक 3.11.2020 को बिहार विधान सभा का चुनाव निर्धारित है। दूथों तक वाहन का आवागमन आवश्यक है जिस कारण से चुनाव कार्य एवं लोगो की कठिनाईयो को देखते हुए तथा उच्चाधिकारी के निर्देशानुसार पथों को तत्काल मोटरेबुल करने का निर्देश दिया गया है ताकि सभी दूथों पर वाहन का आवागमन सुनिश्चित हो सके।

उपरोक्त आलोक में क्षतिग्रस्त पथों में तत्काल Brick Bats से भरकर वाहन का आवागमन चालू किया गया है।

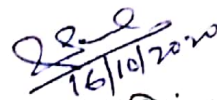
इस प्रकार प्राक्कलन में Brick Bats भरने के साथ आवश्यक मदो का प्रावधान किया गया है।

प्राक्कलन वर्तमान अनुसूचित दर पर तैयार कर आवश्यक कारवाई हेतु समर्पित किया जाता है।



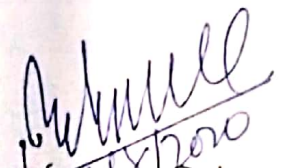
कनीय अभियंता

कार्य अवर प्रमंडल छपरा सदर



सहायक अभियंता

कार्य अवर प्रमंडल छपरा सदर



कार्यपालक अभियंता

कार्य प्रमंडल छपरा-1

## Inspection Report for flood Damage Work

Date :-

1- Name of PIUs :- R.W.D., (W) Division, Chapra - 1

2- Name of Block/Road :- NH-19 to Horigan Tola in Block - Chapra - Sadar

### A. FOR RAOD

1- Damage Location/Chainage :- CH 0.00 Mtr to CH 350 Mtr

2- Damage Length :- 350 Mtr

3- Nature of Damage :- Cutting and Breches in Road at diff location

4- Details of Restoration :-

i- Material being used in Restoration

:- Bricks, Bt, Sand.

ii- Equipment/Tools being used in Restoration Works

:- Tractors, JCB, Roller etc.

iii- Procedure taken up in Restoration Works

:- Laying Bt in cut portion

iv- Restored Length

:- then 1/2 sand using then  
rolled up surface

### B. FOR BRIDGE

1- Damage Location/Chainage :-

2- Damage Length :-

3- Nature of Damage :-

4- Details of Restoration :-

i- Material being used in Restoration

:-

ii- Equipment/Tools being used in Restoration Works

:-

iii- Procedure taken up in Restoration Works

:-

iv- Restored Length

:-

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16.10.20  
JE

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16/10/20  
A.E.

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16/10/20

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16/10/20

Signature

(Name of Inspector)

# FDR

## GENERAL ABSTRACT OF COST

Block:- hapra Sadar

District:- Saran

Length of Road:-- 0.850 KM

Name of Road:-- Motorable of Road From NH-19 To Harijan Tola.

| SL. No. | Item of Work | Amount     |
|---------|--------------|------------|
| A       | TOTAL COST : | 6.001 Lacs |
|         | TOTAL :      | 6.001 Lacs |

*[Signature]*  
16/10/2020  
Junior Engineer

*[Signature]*  
16/10/2020  
Asstt. Engineer

*[Signature]*  
16/10/2020  
Executive Engineer

T/A for Rs. 6.001 / lacs.  
(Rupees Six lacs one hundred) only  
RWD

*[Signature]*  
08/01/21  
TECHNICAL ADVISER  
RURAL WORKS DEPTT.  
WORKS CIRCLE, CHAPRA

*[Signature]*  
Superintending Engineer  
Rural (Works) Deptt.  
Works Circle, Chapra

### GENERAL ABSTRACT OF COST FOR FDR OF ROAD

NAME OF ROAD : Motorable of Road From NH-19 To Harijan Tola.

DISTRICT Saran  
BLOCK Chapra Sadar  
DIVISION Chapra-1  
LENGTH OF ROAD (in Km) 0.850

| Sl. No.                         | DESCRIPTION              | Amount | 1 % Labour Cess | 12 % GST | GROSS AMOUNT (LAKHS) |
|---------------------------------|--------------------------|--------|-----------------|----------|----------------------|
|                                 |                          | 5.311  | 0.053           | 0.637    | 6.001                |
| 1                               | EARTHWORK & BRICK BATS & | 0.000  | 0.000           | 0.000    | 0.000                |
|                                 | HUME PIPE                |        |                 |          | 6.001                |
| TOTAL COST OF PROJECT IN LACS = |                          | 5.311  | 0.053           | 0.637    | 6.001                |

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16/10/2020  
EC  
RWD

| Name Of Road :-          |                  |                | Motorable of Road From NH-19 To Harijan Tola.                                                                                                                                                                                                                                                                |      |     | Block :- |       | Chapra Sadar | DISTRICT:- | Saran           | LENGTH:- | 0.850 KM. | AMOUNT<br>(In Rs.) |
|--------------------------|------------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----|----------|-------|--------------|------------|-----------------|----------|-----------|--------------------|
| Sl. No.                  | SDR<br>SL NO     | MORD<br>Ref No | Description                                                                                                                                                                                                                                                                                                  | Unit | NOS | LENGTH   | WIDTH | HEIGHT       | QUANTITY   | RATE            |          |           |                    |
| 1                        | 8.1.3.2<br>(iii) |                | BRICK BATS<br>Providing brick bats including spreading laying Labour for dry graded bhama khoa folter under Brick Pitching or boulder pitching in slope or apron including light ramming etc. All complete job as per approved design specification and direction of E/L, including carriage cost of bricks. | Cum  |     |          |       |              | 278.075    | 1,909.87        |          |           | 5,31,087.00        |
| Quantity As Per Annexure |                  |                |                                                                                                                                                                                                                                                                                                              |      |     |          |       |              |            | Total Quantity= | 278.08   | 1,909.87  | 5,31,087.00        |

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RWD

## ANNEXTURE-1

Name Of Road :- Motorable of Road From NH-19 To Harijan Tola.

Block- Chapra  
Sadar

| Sl. No. | Description     | Nos. | LENGTH<br>(m) | WIDTH<br>(m) | HEIGHT<br>(m) | UNIT | QUANTITY              |
|---------|-----------------|------|---------------|--------------|---------------|------|-----------------------|
| 1       | Near HP Culvert | 1    | 15.00         | 3.80         | 0.90          | CUM  | 51.30 m <sup>3</sup>  |
| 2       | Near HP Culvert | 1    | 42.00         | 3.50         | 0.70          | CUM  | 102.90 m <sup>3</sup> |
| 3       | CH- 0 M         | 1    | 2.50          | 1.50         | 0.50          | CUM  | 1.88 m <sup>3</sup>   |
| 4       | CH- 20 M        | 1    | 3.00          | 1.50         | 0.40          | CUM  | 1.80 m <sup>3</sup>   |
| 5       | CH- 50 M        | 1    | 3.00          | 1.00         | 0.30          | CUM  | 0.90 m <sup>3</sup>   |
| 6       | CH- 75 M        | 1    | 2.00          | 2.00         | 0.35          | CUM  | 1.40 m <sup>3</sup>   |
| 7       | CH- 90 M        | 1    | 2.75          | 2.50         | 0.40          | CUM  | 2.75 m <sup>3</sup>   |
| 8       | CH- 120 M       | 1    | 3.00          | 2.50         | 0.30          | CUM  | 2.25 m <sup>3</sup>   |
| 9       | CH- 150 M       | 3    | 2.50          | 1.00         | 0.35          | CUM  | 2.63 m <sup>3</sup>   |
| 10      | CH- 160 M       | 2    | 1.50          | 1.50         | 0.30          | CUM  | 1.35 m <sup>3</sup>   |
| 11      | CH- 200 M       | 1    | 2.50          | 3.50         | 0.50          | CUM  | 4.38 m <sup>3</sup>   |
| 12      | CH- 250 M       | 2    | 12.00         | 1.50         | 0.30          | CUM  | 10.80 m <sup>3</sup>  |
| 13      | CH- 350 M       | 1    | 32.00         | 3.75         | 0.50          | CUM  | 60.00 m <sup>3</sup>  |
| 14      | CH- 350 M       | 1    | 15.00         | 3.75         | 0.60          | CUM  | 33.75 m <sup>3</sup>  |

TOTAL QUANTITY =

278.08 m<sup>3</sup>

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# Analysis of Rates (FORMAT F8)

| Sl. No. | SD/SL No. | MORD Ref No. | DESCRIPTION                                                                                                                       | Unit | Quantity | Rate    | Amount in RS |
|---------|-----------|--------------|-----------------------------------------------------------------------------------------------------------------------------------|------|----------|---------|--------------|
|         |           |              | <b>BRICK BATS</b>                                                                                                                 |      |          |         |              |
|         | WRD       |              | Providing, Laying and Spreading Brick Bats in Road ditches sll complete as per approved design specification and direction of E/I |      |          |         |              |
|         | 5/7/40    |              | Unit = cum<br>Taking Output = 1 cum                                                                                               |      |          |         |              |
|         |           | a)           | Labour                                                                                                                            |      |          |         |              |
|         |           |              | Mate                                                                                                                              | day  | 0.04     | 305.00  | 12.20        |
|         |           |              | Unskilled                                                                                                                         | day  | 1.00     | 287.00  | 287.00       |
|         |           | b)           | Materials                                                                                                                         |      |          |         |              |
|         |           |              | Brick Bats                                                                                                                        | Cum  | 1.00     | 1063.00 | 1063.00      |
|         |           | c)           | Over Heads @ 6 % on ( a+b)                                                                                                        |      |          |         | 81.73        |
|         |           |              | C. Profit @ 10 % on ( a+b+c)                                                                                                      |      |          |         | 144.39       |
|         |           | d)           | Rate Per cum= ( a+b+c+d)/2.832                                                                                                    | cum  |          |         | 1588.33      |
|         |           | e)           | Carriage                                                                                                                          |      |          |         |              |
|         |           |              | Brick bats                                                                                                                        | day  | 1.000    | 321.54  | 321.54       |
|         |           |              | Rate per cum with carriage                                                                                                        |      |          |         | 1909.87      |
|         |           |              | <b>FINISHED RATE</b>                                                                                                              | CUM  |          |         | 1,909.87     |

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A/E

# ANALYSIS FOR CARRIAGE OF MATERIALS

## (C) Haulage Charge By 3.60 t Tractor capacity

- |                            |                         |
|----------------------------|-------------------------|
| (i) For Surface Road :-    | Rs. 18.70 Per t per K.M |
| (ii) For Unsurface Toad :- | Rs. 23.30 Per t per K.M |
| (iii) For Kutcha Road :-   | Rs. 29.20 Per t per K.M |

## 1 CARRIAGE COST OF BRICK BAT

Lead as per Quarry Chart :- 7 P + 1 K

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

$$\text{Unloading} = 65.38$$
$$\text{Total per 1000 Nos.} = 321.54$$

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**BASIC RATES**  
**(A) Labour**

| Sl. No. | Description of Labour  | Unit | Rate (Rs.) |
|---------|------------------------|------|------------|
| L-01    | Bhisti                 | day  | 287.00     |
| L-02    | Bitumen Sprayer        | day  | 302.00     |
| L-03    | Head Blacksmith        | day  | 388.00     |
| L-04    | Blaster                | day  | 477.00     |
| L-05    | Carpenter 1st Class    | day  | 388.00     |
| L-06    | Chips spreader         | day  | 345.00     |
| L-07    | Chiseller              | day  | 364.00     |
| L-08    | Dresser (Skilled)      | day  | 367.00     |
| L-09    | Driller                | day  | 345.00     |
| L-10    | Electrician            | day  | 367.00     |
| L-11    | Fitter                 | day  | 395.00     |
| L-12    | Mason (1st class)      | day  | 388.00     |
| L-13    | Mason (2nd Class)      | day  | 345.00     |
| L-14    | Mate                   | day  | 305.00     |
| L-15    | Mazdoor (Unskilled)    | day  | 287.00     |
| L-16    | Mazdoor (Semi skilled) | day  | 299.00     |
| L-17    | Mazdoor (Skilled)      | day  | 364.00     |
| L-18    | Painter (1st class)    | day  | 364.00     |
| L-19    | Plumber                | day  | 364.00     |
| L-20    | Surveyor               | day  | 349.00     |
| L-21    | White Washer           | day  | 364.00     |

**(Basic Rates taken from SOR, 15th edition, Road Construction Department, Govt of Bihar effective from 16/04/2020 ) Revised (Basic Rates taken from SOR, 15th edition, Road Construction Department, Govt of Bihar effective from 11/05/2020 ) & 21/07/2020**

**BASIC RATES  
(B) Material**

| Sl. No. | SOR Code | Description                                                        | Unit | Basic Rate | Add Royalty | Final Basic rate |
|---------|----------|--------------------------------------------------------------------|------|------------|-------------|------------------|
| M-001   | M-056    | AC pipe 100 mm                                                     | m    | 40.63      |             | 40.63            |
| M-002   | M-032    | Aggregate - For 37.5 mm Maximum size - 22.4 mm to 5.6 mm           | cum  | 431.99     | 150.00      | 581.99           |
| M-003   | M-034    | Aggregate - For 37.5 mm Maximum size - 45 mm to 22.5 mm            | cum  | 382.52     | 150.00      | 532.52           |
| M-004   | M-030    | Aggregate - For 37.5 mm Maximum size - Below 5.6 mm                | cum  | 101.35     | 150.00      | 251.35           |
| M-005   | M-032    | Aggregate - For 53 mm Maximum size - 22.5 mm to 5.6 mm             | cum  | 431.99     | 150.00      | 581.99           |
| M-006   | M-038    | Aggregate - For 53 mm Maximum size - 63 mm to 45 mm                | cum  | 330.64     | 150.00      | 480.64           |
| M-007   | M-030    | Aggregate - For 53 mm Maximum size - Below 5.6 mm                  | cum  | 101.35     | 150.00      | 251.35           |
| M-008   | M-040    | Aggregate - Grading I (40 mm nominal Size) 10 mm - 5 mm            | cum  | 432.80     | 150.00      | 582.80           |
| M-009   | M-046    | Aggregate - Grading I (40 mm nominal Size) 25 mm - 10 mm           | cum  | 517.20     | 150.00      | 667.20           |
| M-010   | M-049    | Aggregate - Grading I (40 mm nominal Size) 37.25 mm - 25 mm        | cum  | 382.52     | 150.00      | 532.52           |
| M-011   | M-030    | Aggregate - Grading I (40 mm nominal Size) 5 mm and below          | cum  | 101.35     | 150.00      | 251.35           |
| M-012   | M-040    | Aggregate - Grading II (19 mm nominal Size) 10 mm - 5 mm           | cum  | 432.80     | 150.00      | 582.80           |
| M-013   | M-046    | Aggregate - Grading II (19 mm nominal Size) 25 mm - 10 mm          | cum  | 517.20     | 150.00      | 667.20           |
| M-014   | M-030    | Aggregate - Grading II (19 mm nominal Size) 5 mm and below         | cum  | 101.35     | 150.00      | 251.35           |
| M-015   | M-051    | Aggregate 10 mm                                                    | cum  | 518.80     | 150.00      | 668.80           |
| M-016   | M-053    | Aggregate 20 mm                                                    | cum  | 454.91     | 150.00      | 604.91           |
| M-017   | M-055    | Aggregate 40 mm                                                    | cum  | 344.15     | 150.00      | 494.15           |
| M-018   | M-007    | Aggregate- Crushable type such as moorum or Gravel for Grading I   | cum  | 76.97      | 83.00       | 159.97           |
| M-019   | M-007    | Aggregate- Crushable type such as moorum or Gravel for Grading II  | cum  | 76.97      | 83.00       | 159.97           |
| M-020   | M-007    | Aggregate- Crushable type such as moorum or Gravel for Grading III | cum  | 76.97      | 83.00       | 159.97           |
| M-021   | M-039    | Aggregate-Grading I 90 mm to 45 mm                                 | cum  | 298.91     | 150.00      | 448.91           |
| M-022   | M-038    | Aggregate-Grading II 63 mm to 45 mm                                | cum  | 330.64     | 150.00      | 480.64           |
| M-023   | M-036    | Aggregate-Grading III 53 mm to 22.4 mm                             | cum  | 361.44     | 150.00      | 511.44           |
| M-024   | M-031    | Aggregates 22.4 mm to 2.36 mm for wet mix macadam                  | cum  | 431.99     | 150.00      | 581.99           |
| M-025   | M-034    | Aggregates 45 mm to 22.4 mm for wet mix macadam                    | cum  | 382.52     | 150.00      | 532.52           |

| SL No. | SOR Code | Description                                                                                | Unit  | Basic Rate | Add Royalty | Final Basic rate |
|--------|----------|--------------------------------------------------------------------------------------------|-------|------------|-------------|------------------|
| M-026  | M-059    | Aluminium sheeting (1.5 mm thick)                                                          | sqm   | 7,738.53   |             | 7,738.53         |
| M-027  | M-062    | Aluminium Studs 100 mm x 100 mm fitted with lense reflectors                               | Nos.  | 168.52     |             | 168.52           |
| M-028  |          | Bamboo (1st Class) 85 mm - 100 mm dia, 2.0 m long                                          | No.   | 15.00      |             | 15.00            |
| M-029  |          | Bamboo (1st Class) 85 mm - 100 mm dia, 2.5 m long                                          | No.   | 20.00      |             | 20.00            |
| M-029  |          | Bamboo (1st Class) 85 mm - 100 mm dia, 3.0 m long                                          | No.   | 20.00      |             | 20.00            |
| M-030  |          | Bamboo (1st Class) 85 mm - 100 mm dia, 4.5 m - 5.5 m long                                  | No.   | 50.00      |             | 50.00            |
| M-029  |          | Bamboo (2nd Class) 75mm dia, 1.8 m - 2.5 m long                                            | No.   | 15.00      |             | 15.00            |
| M-030  |          | Bamboo (2nd Class) 75mm dia, 2.1 m - 3.0 m long                                            | No.   | 20.00      |             | 20.00            |
| M-031  | M-063    | Barbed wire                                                                                | kg    | 59.01      |             | 59.01            |
| M-032  | M-007    | Binding Material (Moorum)                                                                  | cum   | 76.97      | 83.00       | 159.97           |
| M-033  | M-072    | Binding wire                                                                               | kg    | 60.03      |             | 60.03            |
| M-034  | M-078    | Bitumen (Crumb Rubber Modified)                                                            | tonne | 39,962.50  |             | 39,962.50        |
| M-035  |          | Bitumen (Natural Rubber Modified)                                                          | tonne | 41,271.30  |             | 41,271.30        |
| M-036  |          | Bitumen (Polymer Modified)                                                                 | tonne |            |             | -                |
| M-037  | M-074    | Bitumen (S-65)(Muzaffarpur)(Excluding the Cost of Empty Drum @Rs.778.18/-Per MT)           | t     | 31,696.82  |             | 31,696.82        |
| M-038  | M-075    | Bitumen (S-90)(Muzaffarpur)(Excluding the Cost of Empty Drum @Rs.778.18/-Per MT)           | t     | 30,896.82  |             | 30,896.82        |
| M-039  | M-077    | Bitumen Emulsion (RS-1) (Muzaffarpur)(Excluding the Cost of Empty Drum @Rs.778.18/-Per MT) | t     | 36,567.82  |             | 36,567.82        |
| M-040  | M-077    | Bitumen Emulsion (SS-1) (Muzaffarpur)(Excluding the Cost of Empty Drum @Rs.778.18/-Per MT) | t     | 38,388.82  |             | 38,388.82        |
| M-041  | M-120    | Bituminous sealant                                                                         | litre | 24.05      |             | 24.05            |
| M-042  | M-148    | Random Rubble Stone                                                                        | kg    | 288.84     |             | 288.84           |
| M-043  |          | Blasting material                                                                          | kg    | 781.83     |             | 781.83           |
| M-044  | M-182    | Bond stone (400 mm x 150 mm x 150 mm)                                                      | No.   | 10.48      |             | 10.48            |
| M-045  | M-079    | Brick 1st Class                                                                            | No.   | 5.001      |             | 5.00             |
| M-046  |          | Cement (OPC - 43 Grade) (Darbhanga) Excluding the Cost of Empty Bag @Rs.3.60/-Per Bag      | t     | 5,146.00   |             | 5,146.00         |
| M-047  | M-090    | Cement Primer                                                                              | litre | 111.48     |             | 111.48           |
| M-048  |          | Chlorprene Elastomer or Closed Cell Foam Sealing Element                                   | m     |            |             | -                |

| Sl. No. | SOR Code | Description                                                                                                             | Unit  | Basic Rate | Add Royalty | Final Basic rate |
|---------|----------|-------------------------------------------------------------------------------------------------------------------------|-------|------------|-------------|------------------|
| M-049   | M-163    | Compensation for earth taken from private land (Including royalty @ Rs. 22.0 per cum & compensation @ Rs. 1.71 per cum) | cum   | 1.81       | 33.00       | 34.81            |
| M-050   | M-084    | Compressible Fibre Board                                                                                                | sqm   | 1,014.12   |             | 1,014.12         |
| M-051   | M-086    | Copper plate                                                                                                            | kg    | 728.10     |             | 728.10           |
| M-052   |          | Corbelling Stones (300 mm x 150 mm x 150 mm)                                                                            | No.   |            |             | -                |
| M-053   | M-087    | Corrosion Resistant Structural Steel Grating                                                                            | kg    | 44.79      |             | 44.79            |
| M-054   | M-089    | Credit for excavated rock found suitable for use                                                                        | cum   | 171.48     |             | 171.48           |
| M-055   |          | Crow bars 40 mm dia (hire charges)                                                                                      | hour  | 5.00       |             | 5.00             |
| M-056   | M-021    | Crushed Sand or Grit Passing 2.36 mm and retained on 180 micron                                                         | cum   | 89.10      | 30.00       | 119.10           |
| M-057   |          | Crushed Slag                                                                                                            | cum   | 775.57     |             | 775.57           |
| M-058   | M-026    | Crushed Stone Aggregate 26.5 mm to 75 micron                                                                            | cum   | 403.36     | 150.00      | 553.36           |
| M-059   | M-052    | Crushed Stone chipping 13.2 mm nominal size                                                                             | cum   | 547.55     | 150.00      | 697.55           |
| M-060   | M-050    | Crushed Stone Chipping 6.7 mm size 100% passing 11.2 mm and retained on 2.36 mm                                         | cum   | 311.52     | 150.00      | 461.52           |
| M-061   | M-050    | Crushed Stone Chipping 6.7 mm size 100% passing 9.5 mm and retained on 2.36 mm                                          | cum   | 311.52     | 150.00      | 461.52           |
| M-062   | M-051    | Crushed Stone chipping 9.5 mm nominal size                                                                              | cum   | 518.80     | 150.00      | 668.80           |
| M-063   | M-035    | Crushed Stone Coarse Aggregate Passing 53 mm and retained on 2.8 mm                                                     | cum   | 374.27     | 150.00      | 524.27           |
| M-064   | M-009    | Curing compound                                                                                                         | litre | 122.56     |             | 122.56           |
| M-065   |          | Debonding strips                                                                                                        | m     | 45.00      |             | 45.00            |
| M-066   |          | Edge Stone (450 mm x 350 mm x 100 mm)                                                                                   | No.   |            |             | -                |
| M-067   |          | Edge Stone (450 mm x 350 mm x 200 mm)                                                                                   | No.   |            |             | -                |
| M-068   |          | Elastomeric bearing assembly                                                                                            | Nos.  | 27,040.49  |             | 27,040.49        |
| M-069   | M-094    | Electric Detonator                                                                                                      | each  | 5.75       |             | 5.75             |
| M-070   | M-095    | Epoxy Paint                                                                                                             | litre | 568.30     |             | 568.30           |
| M-071   | M-097    | Epoxy Primer                                                                                                            | litre | 116.35     |             | 116.35           |
| M-072   | M-167    | Farmyard manure                                                                                                         | cum   | 757.57     |             | 757.57           |
| M-073   |          | Fevicol adhesive                                                                                                        | kg    | 125.00     |             | 125.00           |

| SL No. | SOR Code | Description                                                                                         | Unit | Basic Rate | Add Royalty | Final Basic rate |
|--------|----------|-----------------------------------------------------------------------------------------------------|------|------------|-------------|------------------|
| M-074  | M-012    | Filter media                                                                                        | cum  | 362.06     | 150.00      | 512.06           |
| M-075  | M-021    | Fine aggregate/Crushed sand 2.36 mm to 75 micron                                                    | cum  | 119.10     |             | 119.10           |
| M-076  |          | Galvanised angle                                                                                    | kg   | 43.62      |             | 43.62            |
| M-077  |          | Galvanised angle Section 100 mm x 100 mm of 12 mm thickness                                         | kg   | 43.62      |             | 43.62            |
| M-078  | M-104    | Gelatine 80 per cent                                                                                | kg   | 806.85     |             | 806.85           |
| M-079  | M-056    | GI Pipe 100 mm dia                                                                                  | m    | 266.67     |             | 266.67           |
| M-080  | M-056    | GI Pipe 50 mm dia                                                                                   | m    | 138.89     |             | 138.89           |
| M-081  | M-102    | GI wires                                                                                            | kg   | 60.03      |             | 60.03            |
| M-082  |          | Graded stone aggregate                                                                              | cum  | 311.52     | 150.00      | 461.52           |
| M-083  | M-003    | Granular material (Natural occurring, soil gravel mixture / quarry waste, kankar, laterite, dhandla | cum  | 205.68     | 150.00      | 355.68           |
| M-084  | M-055    | Hand Broken Metal 40 mm size                                                                        | cum  | 344.15     | 150.00      | 494.15           |
| M-085  |          | Indigo                                                                                              | kg   | 416.00     |             | 416.00           |
| M-086  |          | Interlocking Blocks with 60 mm thickness                                                            | sqm  |            |             | -                |
| M-087  |          | Interlocking Blocks with 80 mm thickness                                                            | sqm  |            |             | -                |
| M-088  | M-141    | Joint filler board                                                                                  | sqm  | 957.49     |             | 957.49           |
| M-089  | M-121    | Jute netting, open weave 25 mm square opening                                                       | sqm  | 34.20      |             | 34.20            |
| M-090  | M-121    | Jute rope 12 mm dia                                                                                 | m    | 39.82      |             | 39.82            |
| M-091  | M-031    | Key Aggregates passing 22.4 mm and retained on 2.8 mm                                               | cum  | 431.99     | 150.00      | 581.99           |
| M-092  | M-188    | Lime                                                                                                | t    | 3,615.82   |             | 3,615.82         |
| M-093  | M-188    | Lime putty                                                                                          | t    | 3,615.82   |             | 3,615.82         |
| M-094  | M-094    | Local Wood Piles (1st Class) 150-200 mm dia, 6m long                                                | No.  | 525.75     |             | 525.75           |
| M-095  |          | Local Wood Piles (1st Class) 100 mm x 75 mm                                                         | cum  | 42,224.54  |             | 42,224.54        |
| M-096  | M-002    | Loose stone                                                                                         | cum  | 205.68     | 150.00      | 355.68           |
| M-097  | M-101    | MS clamps                                                                                           | Nos. | 34.68      |             | 34.68            |
| M-098  | M-179    | MS Flat / Structural Steel                                                                          | t    | 38,649.00  |             | 38,649.00        |
| M-099  |          | MS Sheet Tube (47 mm x 47 mm x 12 SWG Sheet)                                                        | kg   | 43.62      |             | 43.62            |

| SL No. | SOR Code | Description                           | Unit  | Basic Rate | Add Royalty | Final Basic rate |
|--------|----------|---------------------------------------|-------|------------|-------------|------------------|
| M-100  |          | MS Sheet 1.5 mm thick                 | sqm   | 416.00     |             | 416.00           |
| M-101  |          | MS Sheet 2 mm thick                   | sqm   | 832.00     |             | 832.00           |
| M-102  | M-130    | Nuts, Bolts and Rivets                | t     | 61,740.00  |             | 61,740.00        |
| M-103  | M-131    | Paint (Synthetic Enamel)              | litre | 226.28     |             | 226.28           |
| M-104  | M-180    | Plasticizer                           | litre | 156.84     |             | 156.84           |
| M-105  | M-138    | Polythene sheet (125 micron)          | sqm   | 14.68      |             | 14.68            |
| M-106  | M-138    | Polythene Sheething                   | Nos.  | 14.68      |             | 14.68            |
| M-107  | M-002    | Quarried Stone 150-200 mm size        | cum   | 205.68     | 150.00      | 355.68           |
| M-108  | M-150    | RCC Pipe NP3 (1200 mm dia)            | m     | 3,921.34   |             | 3,921.34         |
| M-109  | M-149    | RCC Pipe NP3 (1000 mm dia)            | m     | 2,758.22   |             | 2,758.22         |
| M-110  |          | RCC Pipe NP3 (750 mm dia)             | m     | 2,037.52   |             | 2,037.52         |
| M-111  |          | RCC Pipe NP3 (600 mm dia)             | m     | 2,058.38   |             | 2,058.38         |
| M-112  |          | RCC Pipe NP3 (500 mm dia)             | m     |            |             | -                |
|        |          | RCC Pipe NP3 (300 mm dia)             | m     | 505.12     |             | 505.12           |
| M-113  | M-150    | RCC Pipe NP4 (1200 mm dia)            | m     | 3,921.34   |             | 3,921.34         |
| M-114  | M-149    | RCC Pipe NP4 (1000 mm dia)            | m     | 2,758.22   |             | 2,758.22         |
| M-115  |          | RCC Pipe NP4 (750 mm dia)             | m     |            |             | -                |
| M-116  |          | RCC Pipe NP4 (600 mm dia)             | m     | 2,058.38   |             | 2,058.38         |
| M-117  |          | RCC Pipe NP4 (300 mm dia)             | m     | 502.61     |             | 502.61           |
| M-118  |          | Red-oxide Primer                      | litre | 226.49     |             | 226.49           |
| M-119  | M-132    | Road marking paint                    | litre | 226.28     |             | 226.28           |
| M-120  | M-005    | Sand (Coarse)                         | cum   | 100.80     | 75.00       | 175.80           |
| M-121  | M-006    | Sand (Fine)                           | cum   | 66.85      | 75.00       | 141.85           |
| M-122  | M-162    | Seeds                                 | kg    | 34.47      |             | 34.47            |
| M-123  | M-175    | Steel Pipe 50 mm dia                  | m     | 223.45     |             | 223.45           |
| M-124  |          | Steel Reinforcement (HYSD Bars) 12 mm | t     | 38,750.00  |             | 38,750.00        |

| Sl. No. | SOR Code | Description                                                       | Unit | Basic Rate | Add Royalty | Final Basic rate |
|---------|----------|-------------------------------------------------------------------|------|------------|-------------|------------------|
| M-125   |          | Steel Reinforcement (MS Round Bars) 6 mm                          | t    | 39,271.43  |             | 39,271.43        |
| M-126   |          | Steel Reinforcement (TMT Bars) 8 mm                               | t    | 38,750.00  |             | 38,750.00        |
| M-127   | M-001    | Stone Boulder of size 150 mm and below                            | cum  | 205.68     | 150.00      | 355.68           |
| M-128   | M-052    | Stone Chips 12 mm size                                            | cum  | 547.55     | 150.00      | 697.55           |
| M-129   | M-043    | Stone Chips 13.2 mm to 5.6 mm                                     | cum  | 518.80     | 150.00      | 668.80           |
| M-130   | M-041    | Stone Crushed Aggregate 11.2 mm to 0.09 mm                        | cum  | 247.73     | 150.00      | 397.73           |
| M-131   |          | Stone for Coarse Rubble Masonry 1st Sort                          | cum  |            |             | -                |
| M-132   |          | Stone for Coarse Rubble Masonry 2nd Sort                          | cum  |            |             | -                |
| M-133   | M-148    | Stone for Random Rubble Masonry                                   | cum  | 190.55     | 150.00      | 340.55           |
| M-134   |          | Stone for Stone Set Pavement (300 mm x 200 mm x 150 mm)           | No.  |            |             | -                |
| M-135   | M-042    | Stone Screening - Type A 13.2 mm for Grading-1                    | cum  | 373.37     | 150.00      | 523.37           |
| M-136   | M-042    | Stone Screening - Type A 13.2 mm for Grading-2                    | cum  | 373.37     | 150.00      | 523.37           |
| M-137   | M-041    | Stone Screening - Type B 11.2 mm for Grading-2                    | cum  | 247.73     | 150.00      | 397.73           |
| M-138   | M-041    | Stone Screening - Type B 11.2 mm for Grading-3                    | cum  | 247.73     | 150.00      | 397.73           |
| M-139   | M-001    | Stone spall                                                       | cum  | 205.68     | 150.00      | 355.68           |
| M-140   |          | Traffic cones                                                     | No.  |            |             | -                |
| M-141   | M-189    | Water                                                             | kl   | 40.00      |             | 40.00            |
| M-142   | M-020    | Well graded Granular Base Material - Grading A 2.36 mm below      | cum  | 86.71      | 150.00      | 236.71           |
| M-143   | M-026    | Well graded Granular Base Material - Grading A 26.5 mm to 4.75 mm | cum  | 403.36     | 150.00      | 553.36           |
| M-144   | M-029    | Well graded Granular Base Material - Grading A 53 mm to 26.5 mm   | cum  | 361.44     | 150.00      | 511.44           |
| M-145   | M-020    | Well graded Granular Base Material - Grading B 2.36 mm below      | cum  | 86.71      | 150.00      | 236.71           |
| M-146   | M-026    | Well graded Granular Base Material - Grading B 26.5 mm to 4.75 mm | cum  | 403.36     | 150.00      | 553.36           |
| M-147   | M-020    | Well graded Granular Base Material - Grading C 2.36 mm below      | cum  | 86.71      | 150.00      | 236.71           |
| M-148   | M-016    | Well graded Granular Base Material - Grading C 9.5 mm to 4.75 mm  | cum  | 432.80     | 150.00      | 582.80           |
| M-149   | M-020    | Well Graded Material for Sub-Base - Grading I 2.36 mm below       | cum  | 86.71      | 150.00      | 236.71           |
| M-150   | M-013    | Well Graded Material for Sub-Base - Grading I 53 mm to 9.5 mm     | cum  | 470.62     | 150.00      | 620.62           |

| Sl. No. | SOR Code | Description                                                                       | Unit  | Basic Rate | Add Royalty | Final Basic rate |
|---------|----------|-----------------------------------------------------------------------------------|-------|------------|-------------|------------------|
| M-151   | M-017    | Well Graded Material for Sub-Base - Grading I 9.5 mm to 2.36 mm                   | cum   | 364.58     | 150.00      | 514.58           |
| M-152   | M-020    | Well Graded Material for Sub-Base - Grading II 2.36 mm below                      | cum   | 86.71      | 150.00      | 236.71           |
| M-153   | M-027    | Well Graded Material for Sub-Base - Grading II 26.5 mm to 9.5 mm                  | cum   | 507.85     | 150.00      | 657.85           |
| M-154   | M-017    | Well Graded Material for Sub-Base - Grading II 9.5 mm to 2.36 mm                  | cum   | 364.58     | 150.00      | 514.58           |
| M-155   | M-020    | Well Graded Material for Sub-Base - Grading III 2.36 mm below                     | cum   | 86.71      | 150.00      | 236.71           |
| M-156   | M-018    | Well Graded Material for Sub-Base - Grading III 4.75 mm to 2.36 mm                | cum   | 101.35     | 150.00      | 251.35           |
| M-157   | M-016    | Well Graded Material for Sub-Base - Grading III 9.5 mm to 4.75 mm                 | cum   | 432.80     | 150.00      | 582.80           |
| M-158   |          | Wooden sleepers (250 mm x 250 mm x 125 mm) (hire charges)                         | No.   | 5.00       |             | 5.00             |
| RCD     |          |                                                                                   |       |            |             | -                |
| M-118   | M-118    | Hot applied thermoplastic compound (Sp. Gravity - 2.10)                           | litre | 188.53     |             | 188.53           |
| M-152   | M-152    | Reflectorising glass beads                                                        | kg    | 64.78      |             | 64.78            |
| M-146   | M-146    | Stone crushed aggregates 13.2 mm to 0.09 mm                                       | cum   |            |             | -                |
|         |          | Slow-curing bitumen emulsion                                                      | kg    | 115.16     |             | 115.16           |
| M-146   | M-146    | Sapling 2 m high 25 mm dia                                                        | each  | 22.99      |             | 22.99            |
| M-146   | M-146    | Pesticide                                                                         | Kg    | 78.17      |             | 78.17            |
| M-146   | M-091    | Delineators from ISI certified firm as per the standard drawing given in IRC - 79 | each  | 776.17     |             | 776.17           |

**BASIC RATES**  
**(C) USAGE RATES OF PLANT & MACHINERY**

| Sr. No. | SOR Code | Description of                                       |                                   | Output of Machine |          | Usage Rates in Rs. |           |
|---------|----------|------------------------------------------------------|-----------------------------------|-------------------|----------|--------------------|-----------|
|         |          | Machine                                              | Activity                          | Unit              | Output   | Unit               | Rate      |
| PM-001  | P&M-001  | Air Compressor 210 cfm                               | Supplying compressed air          | cfm               | 210.00   | per hour           | 483.70    |
| PM-002  | P&M-024  | HMP 30-40 TPH                                        | BM, DBM, SDBC, PM                 | Cum/h             | 17.00    | per hour           | 23,729.00 |
| PM-003  | P&M-002  | Batch mix Plant 30 cum capacity                      | Concrete mixing                   | Cum/h             | 20.00    | per hour           | 2,981.00  |
| PM-004  | P&M-005  | Bitumen boiler oil fired                             | Bitumen Spraying                  |                   |          |                    |           |
|         |          |                                                      |                                   | litre / h         | 400.00   | per hour           | 299.70    |
|         |          |                                                      |                                   | litre / h         | 2000.00  | per hour           | 299.70    |
| PM-005  | P&M-004  | Bitumen pressure distributor                         | Applying bitumen tack coat        | sqm/h             | 1750.00  | per hour           | 1,209.90  |
| PM-006  | P&M-009  | Concrete mixer 0.28/0.4 cum                          | Mixing of ingredients             | cum/h             | 2.50     | per hour           | 86.30     |
| PM-007  | P&M-012  | Crane upto 3.5T                                      | Lifting of materials              |                   |          | per hour           | 1,289.30  |
| PM-008  | P&M-015  | Dozer D 50                                           | Dozing/cutting/<br>Clearing       | cum/h             | 200.00   | per hour           | 3,337.90  |
|         |          |                                                      |                                   | cum/h             | 100.00   |                    | 3,337.90  |
| PM-009  | P&M-018  | Electric generator set, 125 KVA                      | Electricity generation            | KVA               | 100.00   | per hour           | 2,724.00  |
| PM-010  | P&M-016  | Emulsion Sprayer with Tractor                        | Spraying of Emulsion              |                   |          | per hour           | 1,209.90  |
| PM-011  | P&M-017  | Front end-loader 1 cum bucket capacity @ 45 cum/hour | Loading Aggregates                | cum/h             | 45.00    | per hour           | 1,403.00  |
|         |          |                                                      | Loading Soil                      | cum/h             | 100.00   |                    | 1,403.00  |
| PM-012  | P&M-031  | Hydraulic broom with tractor                         | Surface cleaning                  | sqm/h             | 1250.00  | per hour           | 572.00    |
| PM-013  | P&M-026  | Hydraulic Excavator 0.9 cum                          | Excavation                        | cum/h             | 100.00   | per hour           | 1,969.20  |
| PM-014  | P&M-025  | Hydraulic self propelled chip spreader               | Surface Dressing                  | sqm/h             | 1500.00  | per hour           | 3,986.60  |
| PM-015  | P&M-084  | Jack Hammer with tractor                             | Pavement breaking & rock drilling | cum/h             | 05. to 1 | per hour           | 939.30    |
| PM-016  | P&M-083  | Joint Cutting Machine with 2-3 blades                | Cutting of joints                 | h                 |          | per hour           | 352.00    |
| PM-017  |          | Mixall 6-10 t capacity                               | Mixing of bituminous materials    | t/h               | 8.00     | per hour           | 3,601.00  |
| PM-018  | P&M-032  | Motor Grader                                         | Scarifier & levelling             | cum/h             | 200.00   | per hour           | 2,786.00  |
|         | P&M-054  | Tractor Mounted Grader                               |                                   |                   | 50.00    |                    | 591.40    |
| PM-019  |          | Needle vibrator                                      | Vibrating cement concrete mix     | cum/h             | 3.50     | per hour           | 76.35     |
| PM-020  | P&M-035  | Paver finisher                                       | Laying/spreading                  | t/h               | 75.00    | per hour           | 1,117.00  |
| PM-021  | P&M-086  | Plate compactor                                      | Compaction                        | cum/h             |          | per hour           | 469.70    |
| PM-022  | P&M-086  | Plate vibrator                                       | Compaction                        | cum/h             |          | per hour           | 469.70    |
| PM-023  |          | Screed vibrator                                      | Compaction                        | cum/h             |          | per hour           | 102.65    |
| PM-024  | P&M-044  | Smooth wheeled 80-100 kN tandem roller               | Compaction of Sub-base/ Asphalt   | cum/h             | 30.00    | per hour           | 803.00    |
| PM-025  | P&M-028  | Stone crusher (Integrated) of 200 TPH                | Crushing of Spalls                | t/h               | 200.00   | per hour           | 27,581.30 |

| Sl. No. | S/N Code | Description of                                 |                                                     | Output of Machine  |          | Usage Rates in Rs. |           |
|---------|----------|------------------------------------------------|-----------------------------------------------------|--------------------|----------|--------------------|-----------|
|         |          | Machine                                        | Activity                                            | Unit               | Output   | Cost               | Rate      |
| PM-026  | P&M-024  | Three wheel 80-100 kN Static Roller            | Compaction/<br>Rolling                              |                    |          |                    | 803.00    |
|         |          |                                                | Earth-<br>Embankment or sub-<br>grade               | cum/h              | 80/70    |                    | 803.00    |
|         |          |                                                | Sub-base G-I                                        | cum/h              | 10.00    |                    | 803.00    |
|         |          |                                                | Sub-base G-II/G-III                                 | cum/h              | 8.00     |                    | 803.00    |
|         |          |                                                | WMM                                                 | cum/h              | 16.00    |                    | 803.00    |
|         |          |                                                | BUSG                                                | cum/h              | 10.00    |                    | 803.00    |
|         |          |                                                | BM 50/75 cum                                        | cum/h              | 12.00    |                    | 803.00    |
|         |          |                                                | Premix 20 mm                                        | sqm/h              | 250.00   |                    | 803.00    |
|         |          |                                                | Seal Coat                                           | sqm/h              | 500.00   |                    | 803.00    |
|         |          |                                                | Surface Dressing 1st<br>Coat                        | sqm/h              | 400.00   |                    | 803.00    |
|         |          |                                                | Surface Dressing<br>2nd Coat                        | sqm/h              | 500.00   |                    | 803.00    |
| PM-027  | P&M-040  | Tipper 5.5 cum/10 t                            | Carriage                                            | cum/trip           | 5.50     | per hour           | 1,043.00  |
| PM-028  | P&M-053  | Tractor with Disc Harrows                      | Pulverisation of soil                               | cum/h              | 80.00    | per hour           | 549.10    |
| PM-029  | P&M-055  | Tractor with ripper @ 60 cum per<br>hour       | Ripping Pavements,<br>uprooting trees               | cum/h              | 60.00    | per hour           | 591.40    |
| PM-030  | P&M-053  | Tractor with trolley/with Grading<br>equipment | Transportation of<br>materials                      | t/trip             | 3 to 5   | per hour           | 549.10    |
| PM-031  | P&M-054  | Tractor with Rotavator                         | Scarifier                                           | cum/h              | 25.00    | per hour           | 573.20    |
| PM-032  | P&M-057  | Truck 10 t capacity                            | Carriage                                            | cum/trip           | 5.50     | per hour           | 934.30    |
| PM-033  | P&M-059  | Vibratory roller 80-100 kN                     | Compaction of soil<br>WMM                           | cum/h              | 100.00   | per hour           | 2,069.00  |
|         |          |                                                | Compaction of BM                                    | cum/h              | 60.00    |                    | 2,069.00  |
| PM-034  | P&M-060  | Water tanker 6 kl capacity (Truck<br>Mounted)  | Carriage of water                                   | litre / h          | 12000.00 | per hour           | 184.00    |
| PM-035  | P&M-062  | Wet mix plant (Pug Mill)                       | Wet Mix                                             | cum/h              | 25.00    | per hour           | 1,822.30  |
| RCD     |          |                                                |                                                     |                    |          |                    |           |
| P&M-036 | P&M-043  | Road marking machine                           | Road marking                                        | Sqm/h              | 100.00   | per hour           | 143.80    |
| P&M-037 | P&M-022  | Hot Mix Plant - 100 TPH                        | DBM/BM/SDBC/<br>Premix                              | Cum/h              | 30.00    | per hour           | 54,286.00 |
| P&M-038 | P&M-034  | Sensor Paver Finisher                          | Paving of<br>DBM/BM/SDBC/<br>Premix                 | Cum/h              | 40.00    | per hour           | 1,505.00  |
| P&M-039 | P&M-081  | 250 KVA Generator Set                          | Generation of<br>Electric Energy                    | KVA                | 200.00   | per hour           | 1,640.00  |
| P&M-040 | P&M-047  | Tipper 5 Cum                                   | Transportation of<br>Soil, CSB, WMM,<br>Hotmix etc. | Capacity<br>in Cum | 5.50     | Tonne.Km           | 8.50      |
| P&M-040 | P&M-045  | Tandem Road Roller                             | Rolling of Asphalt<br>Surface                       | Cum/h              | 30.00    | per hour           | 1,722.00  |

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