ग्रामीण कार्य विभाग

Rural Works Department, Govt of Bihar

## BIHAR RURAL ROAD DEVELOPMENT AGENCY (BRRDA)

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

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


T.S. COPY

| | | | |
|---|---|---|---|
| **DISTRICT :** | **Bhagalpur** | **BLOCK :** | **Rangra** |
| **NAME OF ROAD :** | **NH-31 Madrauni Chowk to Sahura via Nasi tola** | | |

| | | | |
|---|---|---|---|
| *TOTAL LENGTH OF ROAD* | : | 3.345 | KM |
| *TOTAL COST OF FDR PART-A* | : | 3.939 | LAKH |
| *GST @ 12 %* | : | 0.473 | LAKH |
| *LABOUR CESS @ 1 %* | : | 0.039 | LAKH |
| *SEIGNIORAGE FEE @ 10 %* | : | 0.069 | LAKH |
| *TOTALCOST OF RESTORATION WORK* | : | 4.520 | LAKH |

Submitted By :-

**Executive Engineer**

Rural Work Department

Works Division, Navgachhiya

# Inspection Report For Flood Damage Work

Date:-

1. Name of PIUs – EE RWD(W) Division Naugachhiya
2. Name of Block/ Road (Rangra chowk) NH-31 Madrauni chowk to Sahura via masjid

A. **For Road**
   1. Damage Location/Chainage – 75-237 = 144m, 263-303 = 40m, 342-361 = 19m, 541-740 = 199m, 791-810 = 19m, 921-942 = 21m
   2. Damage length 0.442 km
   3. Nature of Damage cutting of shoulder & patch of road.
   4. Detail of Restoration Works
   (i) Material being used in Restoration Works: sand bags & Local sand.
   (ii) Equipment's/ Tools Being used in Restoration Works:
   (iii) Procedure Taken up in Restoration Works:
   (iv) Restored Length: 0.442 km

B. **For Bridge**
   1. Damage Location/Chainage NA –
   2. Damage length
   3. Nature of Damage
   4. Detail of Restoration Works
   (i) Material being used in Restoration Works:
   (ii) Equipment's/ Tools Being used in Restoration Works:
   (iii) Procedure Taken up in Restoration Works:
   (iv) Restored Length:

C. Requirement Of New CD/Bridges
   (i) Name of Road:
   (ii) Location/ Chainage
   (iii) Type of CD Work/Length required NA –

**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. (Motorable work found Satisfactory)

Signature of JE/AE/EE

A.E.

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कार्य प्रमण्डल नवगछिया

Signature
(Name of Inspector)

# GENERAL ABSTRACT OF COST

**Name of Road :** **NH-31 Madrauni Chowk to Sahura via Nasi tola** **District :** **Bhagalpur**

**Length (Km) :** **3.345** **Block :** **Rangra**

| SL No | Particulars | | Details (Km) | Total Cost (in Rs.) |
|---|---|---|---|---|
| 1 | Cost of Road Restoration work | : | 3.35 | 393891 ~~393,895.00~~ |
| 2 | Add G.S.T @ 12 % | : | | 47,267.00 |
| 3 | Add L.C. @ 1 % | : | | 3,939.00 |
| 4 | Add 10% S.F. on Basic rate of Mines material | : | | 6881 ~~6,885.00~~ |
| | **Total Cost of Restoration work** | : | | 4,51,978 ~~451,986.00~~ |
| | | | **Say,** | ~~**451,986.00**~~ |

4,52,000.00

07/11/2021
*J. E.*

2/11/21
*A. E.*

04/11/2021
*E. E*

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कार्य प्रमण्डल नवगछिया

Technically Sanctioned for Rs 4,52,000.00 (Rupees four lac fifty two thousand) only.

13/1/22

Superintending Engineer
Rural Works Department
Works Circle, Bhagalpur

13/01/22

# ESTIMATE FOR ROAD RESTORATION WORK

**Name of Road:** NH-31 Madrauni Chowk to Sahura via Nasi tola **Block:** Rangra **District:** Bhagalpur **Length:** 3.348 Km

| Sl No. | SSR Item No. | Description | No | Length (M) | Width (M) | H/D (M) | Qty | Unit | Rates (in Rs.) | Amount (in Rs.) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 8.7.53 | Providing sand bag with sand and labour including carriage laying, filling etc all complete job as per specification and direction of E/I | | | | | | | | |
| | | As per attached " Annexure - B " | | | | | 11393 | / bags | 30.70 | 349,765.00 |
| | | | | | | | | | | |
| 2 | 11.1 | Local Sand filling in as per drawing and technical specification Clause 305.3.9 | | | | | | | | |
| | | As per attached " Annexure - C " | | | | | 98.01 | | 458.78 | 44966 |
| | | | | | | | **98.01** | Cum | ~~[illegible]~~ | ~~[illegible]~~ |
| | | | | | | **Total Cost of Flood Protective work =** | | | | ~~[illegible]~~ 394731 |

J.E. 2/11/2021

A.E. 2/11/21

E.E. 02/11/21

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## ANNEXURE - "B"

## E. C. Bags Measurement

**Name of Road : NH-31 Madrauni Chowk to Sahura via Nasi tola**

Length (Km) : 3.345

| Sr. No. | Chainage (m) | Nos. | Length (m) | Width (m) | | | Average Width (m) | Depth (m) | | | Average Depth (m) | Quantity (Cum) | Quantity (No of bag) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 95 - 110 RHS | 1 | 15.00 | 0.60 | | | 0.60 | 0.50 | | | 0.50 | 4.50 | 132 |
| 2 | 110 - 120 RHS | 1 | 10.00 | 0.50 | 0.60 | | 0.55 | 0.60 | | | 0.60 | 3.30 | 97 |
| 3 | 120 - 239 RHS | 1 | 119.00 | 2.00 | | | 2.00 | 1.20 | | | 1.20 | 285.60 | 8400 |
| 4 | 263 - 303 RHS | 1 | 40.00 | 0.60 | | | 0.60 | 0.60 | | | 0.60 | 14.40 | 424 |
| 5 | 342 - 361 RHS | 1 | 19.00 | 0.50 | 0.60 | | 0.55 | 0.30 | | | 0.30 | 3.14 | 92 |
| 6 | 541 - 740 RHS | 1 | 199.00 | 0.50 | 0.60 | | 0.55 | 0.60 | | | 0.60 | 65.67 | 1931 |
| 7 | 791 - 810 RHS | 1 | 19.00 | 0.30 | 0.60 | | 0.45 | 0.30 | | | 0.30 | 2.57 | 76 |
| 8 | 921 - 942 RHS | 1 | 21.00 | 0.60 | 0.70 | | 0.65 | 0.60 | | | 0.60 | 8.19 | 241 |
| | | | | | | | | | | | | Total = | 11,393 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | S. F. | | - | 11393 | Nos. | @ | Rs. | 4.82 | x | 10% | = | Rs. | ~~5,495.00~~ ५४९१ |

01/11/2021

J. E.

2/11/21

A. E.

E.E.

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ANNEXURE - " C "

## Local Sand Measurement

**Name of Road :** NH-31 Madrauni Chowk to Sahura via Nasi tola

Length (Km) : 3.345

| Sr. No. | Chainage (m) | Nos. | Length (m) | Width (m) | | | Average Width (m) | Depth (m) | | | Average Depth (m) | Quantity (Cum) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 129 - 133 | 1 | 4.00 | 3.00 | | | 3.00 | 0.30 | 0.60 | | 0.45 | 5.40 |
| 2 | 150 - 159 | 1 | 9.00 | 2.30 | | | 2.30 | 0.30 | 1.10 | | 0.70 | 14.49 |
| 3 | 260 - 271 | 1 | 11.00 | 2.50 | 2.60 | | 2.55 | 0.30 | 1.10 | | 0.70 | 19.64 |
| 4 | 497 - 503 | 1 | 6.00 | 2.30 | 2.40 | | 2.35 | 0.30 | 1.30 | | 0.80 | 11.28 |
| 5 | 536 - 541 | 1 | 5.00 | 3.00 | 3.50 | | 3.25 | 0.30 | 1.20 | | 0.75 | 12.19 |
| 6 | 622 - 625 | 1 | 3.00 | 2.40 | 2.50 | | 2.45 | 0.30 | 1.20 | | 0.75 | 5.51 |
| 7 | 809 - 815 | 1 | 6.00 | 2.00 | | | 2.00 | 0.30 | 1.00 | | 0.65 | 7.80 |
| 8 | 820 - 827 | 1 | 7.00 | 2.00 | | | 2.00 | 0.30 | 1.00 | | 0.65 | 9.10 |
| 9 | 831 - 840 | 1 | 9.00 | 2.00 | | | 2.00 | 0.30 | 1.10 | | 0.70 | 12.60 |
| | | | | | | | | | | | Total = | **98.01** |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | S. F. | - | 98.01 | Cum | @ | Rs. | 141.85 | x | 10% | = | Rs. | **1,390.00** |

J. E.

A. E.

E. E.

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कार्य प्रमण्डल [illegible]

# Carriage Cost of Material via Road

RWD, works Division, Bhagalpur

**Name of Road :** NH-31 Madrauni Chowk to Sahura via Nasi tola — **Block : Rangra**

| Sl No | Item | Unit | Source | Carriage Cost & Lead in Km: Pucka / Surface | | | | Carriage Cost & Lead in Km: Katcha | | | | Loading & Unloading Cost | Carriage By Road | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Ratio | Rate | Lead | Cost | Ratio | Rate | Lead | Cost | | | |
| 1 | Stone Metal Gr-II/Via Road | Cum | Mirza Chenki | 8.00 / 4.59 | x 7.47 | x 83 Km | = Rs 1080.63 | 8.00 / 4.59 | x 18.09 | x 0 Km | = Rs 0.00 | 193.62 | 1274.25 | 1274.25 |
| 2 | Stone Metal Gr-III / GSB Via Road | Cum | Mirza Chenki | 8.00 / 4.99 | x 7.47 | x 83 Km | = Rs 994.00 | 8.00 / 4.99 | x 18.09 | x 0 Km | = Rs 0.00 | 193.62 | 1187.62 | 1187.62 |
| 3 | Stone Aggregate / Chips Via Road | Cum | Mirza Chenki | 8.00 / 4.99 | x 7.47 | x 83 Km | = Rs 994.00 | 8.00 / 4.99 | x 18.09 | x 0 Km | = Rs 0.00 | 193.62 | 1187.62 | 1187.62 |
| 4 | Stone Boulder /Via Road | Cum | Mirza Chenki | 8.00 / 4.80 | x 7.47 | x 83 Km | = Rs 1033.35 | 8.00 / 4.80 | x 18.09 | x 0 Km | = Rs 0.00 | 193.62 | 1226.97 | 1226.97 |
| 5 | Coarse Sand/Via Road | Cum | Hanmara | 8.00 / 4.99 | x 7.47 | x 36 Km | = Rs 431.13 | 8.00 / 4.99 | x 18.09 | x 0 Km | = Rs 0.00 | 104.88 | 536.01 | 536.01 |
| 6 | Mooram/Via Road | Cum | Mirza Chenki | 8.00 / 6.00 | x 7.47 | x 83 Km | = Rs 826.68 | 8.00 / 6.00 | x 18.09 | x 0 Km | = Rs 0.00 | 104.88 | 931.56 | 931.56 |
| 7 | Bitumen Barauni/ Via Road | MT | Barauni | 8.00 / 8.00 | x 7.47 | x 125 Km | = Rs 933.75 | 8.00 / 8.00 | x 18.09 | x 0 Km | = Rs 0.00 | 365.00 | 1298.75 | 1298.75 |
| 8 | Bitumen Emulsion /Via Road | MT | Fatuha | 8.00 / 8.00 | x 7.47 | x 212 Km | = Rs 1583.64 | 8.00 / 8.00 | x 18.09 | x 0 Km | = Rs 0.00 | 365.00 | 1948.64 | 1948.64 |
| 9 | Local Sand | Cum | Local | 8.00 / 4.99 | x 7.47 | x 2 Km | = Rs 23.95 | 8.00 / 4.99 | x 18.09 | x 1 Km | = Rs 29.00 | 104.88 | 157.83 | 157.83 |
| 10 | Brick | 1000 No | Local | 8.00 / 2.00 | x 7.47 | x 7 Km | = Rs 209.16 | 8.00 / 2.00 | x 18.09 | x 1 Km | = Rs 72.36 | 441.62 | 723.14 | 723.14 |
| 11 | Cement | MT | Local | 8.00 / 8.00 | x 7.47 | x 7 Km | = Rs 52.29 | 8.00 / 8.00 | x 18.09 | x 0 Km | = Rs 0.00 | 317.64 | 369.93 | 369.93 |
| 12 | Steel | MT | Local | 8.00 / 8.00 | x 7.47 | x 7 Km | = Rs 52.29 | 8.00 / 8.00 | x 18.09 | x 0 Km | = Rs 0.00 | 337.70 | 389.99 | 389.99 |
| 13 | Hume Pipe (1000 mm ) | M | Godda | 8.00 / 10.00 | x 7.47 | x 68 Km | = Rs 406.37 | 8.00 / 10.00 | x 18.09 | x 0 Km | = Rs 0.00 | 75.69 | 482.06 | 482.06 |
| 14 | Hume Pipe (600 mm ) | M | Godda | 8.00 / 25.00 | x 7.47 | x 68 Km | = Rs 162.55 | 8.00 / 25.00 | x 18.09 | x 0 Km | = Rs 0.00 | 32.44 | 194.99 | 194.99 |
| 15 | Hume Pipe (300 mm ) | M | [illegible] | 8.00 / 60.00 | x 7.47 | x 68 Km | = Rs 67.73 | 8.00 / 60.00 | x 19.82 | x 0 Km | = Rs 0.00 | 32.44 | 100.17 | 100.17 |
| 16 | Bamboo | Nos | Karsela | 8.00 / 8.00 | x 7.47 | x 42 Km | = Rs 313.74 | 8.00 / 8.00 | x 19.82 | x 0 Km | = Rs 0.00 | 317.64 | 369.93 | 631.38 |
| 17 | Brick bats | Cum | Local | 8.00 / 2.00 | x 7.47 | x 7 Km | = Rs 209.16 | 8.00 / 2.00 | x 18.09 | x 1 Km | = Rs 72.36 | 193.62 | 1274.25 | 475.14 |
| 18 | Klin Rubbish | Cum | Local | 8.00 / 2.00 | x 7.47 | x 7 Km | = Rs 209.16 | 8.00 / 2.00 | x 18.09 | x 1 Km | = Rs 72.36 | 104.88 | 157.83 | 386.40 |

@lh 8/11/2024

Junior Engineer

@ 2/11/21

R 8/11/2024

# Rate Analysis

| SOR 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 Dumpong ,turning for return trip exluding time for haulage and return tirp | | | | |
| | Unit = cum | | | | |
| | Taking output = 2.832 cum | | | | |
| a) | **Labour** | | | | |
| | Mazdoor (Unskilled) | day | 2.17 | 292 | 613.64 |
| b) | **Materilas** | | | | |
| | Brick Bats | cum | 2.832 | 1,051.00 | 297[illegible]3 |
| c) | **Carriage** | | | | |
| | | cum | 2.832 | [illegible] | ~~2344.45~~ 1140.7 |
| | Cost for 5.5 cum = a+b+c | | | | ~~4952.62~~ 4750 |
| | **Rate per cum = (a+b+c+d)/2.83** | cum | | | ~~1240.98~~ (42) |
| | **Total per cum** | **cum** | | | ~~4,760.04~~ |
| 5.7.9 | Labour for fitting and fixing 62 mm to 75 mm dia bamboo runners in position at every verticle pile with 150 mm long nails or 38 swg G. I. wire including cost of G.I. or nails complete job as per specification and direction of E/I | | | | 1677.54 |
| | **Unit = Per mt.** | | | | |
| | **Taking Out Put = 30.50 m** | | | | |
| (i) | **Materials** | | | | |
| | Cost of 150 mm long nails | Kg | 0.50 | 61.74 | 30.87 |
| (ii) | **Labour** | | | | |
| | Carpenter Gr -II | No. | 0.125 | 351 | 43.88 |
| | Unskilled Labour | No. | 0.25 | 292 | 73.00 |
| | | | | | **147.75** |
| | Rate for 30.5 m | | | | **147.75** |
| | | | | | 4.84 |
| | **Rate for 1 m** | m | 1.00 | 23.58 | 23.58 |
| (iii) | **Bamboo(2nd class) 75mm dia, 1.8 - 2.5m long** | | | **Say.** | **28.43** |
| | **Rate per m** | | | | |
| | | | | | |
| 5.7.7 | Labour for cutting 62 mm to 75 mm dia bamboo piles in size and making shoes and driving etc. complete bob as per specification and direction E/I. | | | | |
| | **Unit = Per m** | | | | |
| | **Taking Out Put = 30.50 m** | | | | |
| | **Assurning** | | | | |
| | 20 no pile sunk 1.525 m deeps | | | | |
| | Total depth sunk 30.50 m | | | | |
| (i) | **Labour** | No. | 0.25 | 351 | 87.75 |
| | Carpenter Gr -II | No. | 2.50 | 292 | 730.00 |
| | Unskilled Labour for piling | | | | 817.75 |
| | | | | | 817.75 |
| | Rate for 30.5 m | | | | 26.81 |
| | **Rate for 1 m** | m | 1.00 | 23.58 | 23.58 |
| (ii) | **Bamboo(2nd class) 75mm dia, 1.8 - 2.5m long** | | | **Say.** | **50.39** |
| | **Rate per m** | | | | |
| | | | | | |
| 5.7.8 WRD | Labour for fitting and and fixing split bamboo woven chachari in position with 20 swg G.I. wire of 75 mm to 100 mm long nails alternatively including cost of G.I. wire or nails complete job as per specification and direction of E/I. | | | | |
| | **(Assuming strip of 3.05x3.05 = 9.30 sqm** | | | | |
| | **Unit = per sqm** | | | | |
| | **Taking Out = 9.30 sqm** | | | | |

| | | | | | |
|---|---|---|---|---|---|
| a | **Labour** | | | | |
| | Carpenter Gr -II | | | | |
| | Mazdoor (Unskilled) for pilling | No | 1.00 | 351 | 351.00 |
| b | **Materials** | No | 1.00 | 292 | 292.00 |
| | 75 mm to 100 mm long nails | | | | |
| c | **Bamboo(2nd class) 75mm dia. 1.8 - 2.5m long** | kg | 0.25 | 61.74 | 15.44 |
| | | m | 11 | 23.58 | 259.42 |
| | **Rate Per Sqm = (a+b+c)/9.30** | | | | **917.85** |
| **10.7.40 WRD** | Labour for filling Cement Bag, swing and laying materilas Unit = Per Bag | | | | **98.69** |
| A | Supply Empty cement Bag with Sand (2.92+4.82) | | | | |
| | Stiching Roll (Nylon) | No | 100 | 7.74 | 774.00 |
| | | No | 2 | 30.00 | 60.00 |
| | | | | **Total (A)** | **834.00** |
| B | Unskilled Labour for filling stiching and staking | | | | |
| | Unskilled Labour for carrying and Placing at work site | No | 1.67 | 292 | 487.64 |
| | Skilled Labour for stiching | No | 3 | 292 | 876.00 |
| | **Total per bag** | No | 0.33 | 370 | 122.10 |
| | | | | **Total (B)** | **1,485.74** |
| C | Hire charge of Machine | | | | |
| | Hire charge of Stiching Machine | | | | |
| | Hire charge of Generator 3 K.V.A | No | 0.33 | 50 | 16.50 |
| | **Total per bag** | No | 2.67 | 74 | 197.58 |
| | | | | **Total (C)** | **214.08** |
| D | **Carriage Cost of Local Sand** | | | | |
| | **1.2 Cft = 0.034 $m^3$** | | | | |
| | | cum | 3.40 | 157.83 | 536.62 |
| | **Total cost of (A+B+C+D) =** | | | **Total (D)** | **536.62** |
| | **Rate per Bag** | Bag | | | **3,070.44** |
| 4.1 | **Granular Sub-base with Well Graded Material (Table 400.1)** | | | | **30.70** |
| | ( 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** | | | | |
| | Tractar mounted grader arrangement for grading @ 100 cum pe | 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 | 79039.49 |
| | Water | kl | 30.00 | 40.00 | 1200.00 |
| | **Cost of GSB for 300 cum** | | | | **244998.59** |
| | **A) Cost of GSB without carriage per cum** | **cum** | | | **816.66** |
| e) | ***CARRIAGE*** | | | | |
| | **Carriage** for GSB material | Cum | 0.768 | 1187.62 | 912.09 |
| | Carriage for material below 2.36 mm (Local Sand) | Cum | 0.512 | 1187.62 | 608.06 |

| | | | | | |
|---|---|---|---|---|---|
| | Rate per cum with carriage | | | | 2336.82 |
| 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 1106. | | | | |
| 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) | | | | 43011.58 |
| | **A) Basic Cost per m = (a+b+c+d)/7.5** | m | | | **5734.88** |
| | **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 | | | **964.12** |
| | **Rate per m = (A+B)** | **m** | | | **6699.00** |
| B. | **1000 MM DIA (Single Row)** | | | | |
| a) | **Material** | | | | |
| | RCC NP3 pipe including collar | m | 7.50 | 2755.50 | 20666.25 |
| b) | **Labour** | | | | |
| | 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** |
| | **CARRIAGE COST** | | | | |
| | NP3 Pipe | m | 7.50 | 482.06 | 3615.45 |
| | Carriage cost of 7.5 m | | | | 3615.45 |
| | **B) Carriage cost per m** | m | | | **482.06** |
| | **Rate per m = (A+B)** | **m** | | | **3330.77** |
| C. | **600 MM DIA (Double Row)** | | | | |
| a) | **Material** | | | | |
| | RCC NP3 pipe including collar | m | 15 | 1582.72 | 23740.80 |
| b) | **Labour** | | | | |
| | 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 | | | **3210.05** |
| | **CARRIAGE COST** | | | | |
| | NP3 Pipe | m | 15 | 194.99 | 2924.85 |
| | Carriage cost of 7.5 m | | | | 2924.85 |
| | **B) Carriage cost per m** | m | | | **389.98** |
| | **Rate per m = (A+B)** | **m** | | | **3600.03** |
| D. | **600 MM DIA (Single Row)** | | | | |
| a) | **Material** | | | | |
| | RCC NP3 pipe including collar | m | 7.50 | 1582.72 | 11870.40 |
| b) | **Labour** | | | | |
| | 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** |
| | **CARRIAGE COST** | | | | |
| | NP3 Pipe | m | 7.5 | 194.99 | 1462.43 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Carriage cost of 7.5 m | | | | | 1462.43 |
| | B) Carriage cost per m | | | | | 194.99 |
| | Rate per m = (A+B) | m | | | | 1822.32 |
| 11.1 | **Local Sand filling in as per drawing and technical specification Clause 305.3.9** | m | | | | |
| | **Sand filling** | | | | | |
| | Unit = cum | | | | | |
| a) | **Labour** | | | | | |
| | Mate | day | 0.01 | 304.00 | | 3.04 |
| | Mazdoor (Unskilled) | day | 0.30 | 292.00 | | 87.60 |
| b) | **Material** | | | | | |
| | Sand (assuming 20 per cent voids) | cum | 1.20 | 141.85 | | 170.22 |
| | **Rate per cum = (a+b)** | | | | | 260.86 |
| c) | ***Carriage Cost*** | | | | | |
| | Sand (assuming 20 per cent voids) | cum | 1.20 | 157.83 | | 189.40 |
| | **Rate per cum = a+b+c=** | cum | | | | **450.26** |

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