# अधीक्षण अभियंता का कार्यालय
## ग्रामीण कार्य विभाग, कार्य अंचल, मुजफ्फरपुर

पत्रांक–..1687.........                                        मुज0/ दिनांक–28/12/2020

प्रेषक,

अधीक्षण अभियंता,
ग्रामीण कार्य विभाग,
कार्य अंचल, मुजफ्फरपुर।

सेवा में,

मुख्य अभियंता–04,
ग्रामीण कार्य विभाग,
बिहार, पटना।

**विषयः–** **बाढ़/ अतिवृष्टि के कारण क्षतिग्रस्त पथ अंधराबाड़ से मुरौवतपुर जाने वाली सड़क में पहले कि0मी0 से छठे कि0मी0 में पुर्नस्थापन कार्य का प्राक्कलन प्रशासनिक स्वीकृति हेतु समर्पित करने के संबंध में।**

प्रसंगः– कार्यपालक अभियंता, ग्रामीण कार्य विभाग, कार्य प्रमण्डल, महनार का पत्रांक–950 दिनांक–27.11.2020

महाशय,

उपर्युक्त विषयक प्रासंगिक पत्र से प्राप्त पथ के पुर्नस्थापन कार्य का प्राक्कलन प्रशासनिक स्वीकृति हेतु समर्पित की जाती है।

__अनु0__–यथोक्त।

विश्वासभाजन

28.12.20

अधीक्षण अभियंता,
ग्रामीण कार्य विभाग,
कार्य अंचल, मुजफ्फरपुर।

# कार्यपालक अभियंता का कार्यालय
## ग्रामीण कार्य विभाग, कार्य प्रमंडल, महनार।

पत्रांक :– 950 दिनांक :– 27/11/2020

प्रेषक:– कार्यपालक अभियंता,
ग्रामीण कार्य विभाग, कार्य प्रमंडल,
महनार।

सेवा में,
अधीक्षण अभियंता,
ग्रामीण कार्य विभाग,
कार्य अंचल, मुजफ्फरपुर।

**विषय:– शीर्ष FDR योजनान्तर्गत तकनिकी अनुमोदन के संबंध में।**

महाशय,

उपर्युक्त विषय के संबंध में कहना है कि शीर्ष FDR योजनान्तर्गत प्रमण्डलाधीन निम्नलिखित 01 (एक) योजना का प्राक्कलन तैयार कर आवश्यक कार्रवाई हेतु समर्पित की जाती है।

| क्र0सं0 | प्रखण्ड | योजना का नाम | प्रक्कलित राशि (लाख |
|---|---|---|---|
| 1. | सहदेई बुजुर्ग | अन्धराबड़ से मुरौवतपुर जानेवाली सड़क के पहला से छठा कि0मी0 में मरम्मति कार्य। | 21.92 |

प्राक्कलन की घटनोत्तर तकनीकी अनुमोदन एवं आवश्यक कार्रवाई हेतु समर्पित की जाती है।

अनु0:–यथोंपरि।

विश्वासभाजन

27/11/20

कार्यपालक अभियंता
ग्रामीण कार्य विभाग,कार्य प्रमंडल
महनार।

# GOVERNMENT OF BIHAR

## RURAL WORKS DEPARTMENT

# RESTORATION WORK

## 2020-21

**STATE :- BIHAR**
**DISTRICT :- Vaishali**
**BLOCK :- Sahdei Bujurg**

ANDHARABARH SE MURAUWATPUR JANE WALI SADAK MAIN 1ST TO 6TH KM MAIN RESTORATION WORK

# ESTIMATE

| | |
|---|---|
| TOTAL LENGTH OF ROAD | 11.500 KM |
| | |
| TOTAL COST FOR RESTORATION | Rs. ~~21.92 Lac.~~ ~~25.57975.14/00~~ 22.65 lac |
| | |
| TOTAL PROJECT COST INCLUDING LC & GST | Rs. ~~21.92~~ Lacs 22.65 lac ~~25.58 lacs~~ |

PREPARED BY:
EXECUTIVE ENGINEER
RWD WORKS DIVISION
MAHNAR

पत्रांक- 2826 दिनांक- 15/12/2020

प्रेषक-

कार्यपालक अभियंता
ग्रामीण कार्य विभाग,
कार्य प्रमंडल, महुआ।

सेवा में,

अधीक्षण अभियंता
ग्रामीण कार्य विभाग,
कार्य अंचल, मुजफ्फरपुर।

विषय: ग्रामीण कार्य विभाग, कार्य प्रमंडल, महनार से संबंधित FDR मद से कराये गये यातायात पुनर्स्थापन कार्य का प्राक्कलन जाँच के सम्बन्ध में।

महाश्य,

उपरोक्त विषयक सन्दर्भ में सूचित करना है ग्रामीण कार्य विभाग, कार्य प्रमंडल, महनार से संबंधित FDR मद से कराये गये निम्न पथ में यातायात पुनर्स्थापन कार्य का प्राक्कलन जाँच किया गया एवं प्राक्कलन कार्य के अनुरुप पाया गया।

| क्र0स0 | पथ का नाम | प्राक्कलित राशि |
|---|---|---|
| 1 | अन्धराबड़ से मुरौवतपुर जानेवाली सड़क के पहला से छठा कि0मी0 में मरम्मति कार्य | 21.92 लाख |

विश्वासभाजन

15.12.20

कार्यपालक अभियंता
ग्रामीण कार्य विभाग,
कार्य प्रमंडल, महुआ।

# प्रतिवेदन

योजना का नाम :— अन्धराबड़ से मुरौवतपुर जानेवाली सड़क के पहला से छठा कि0मी0 में मरम्मति कार्य।

योजना शीर्ष :— F.D.R.

पथ्यांश की लम्बाई :— 6.000 कि0 मी0

प्रखंड :— सहदेई बुर्जुग

प्रमण्डल :— महनार

जिला :— वैशाली

प्राक्कलित राशि :— 21.92 लाख

प्रस्तुत प्राक्कलन 2020 के दौरान कराये गये अपातकालिन सड़क मरम्मति कार्य हेतु तैयार किया गया है। जूलाई 2020 के महिना में हुई वर्षा के कारण इस ग्रामीण पथ के पहले कि0मी0 में भारी जलजमाव के कारण पथ काफी क्षतिग्रस्त हो गया था, यातायात सुचारु रखने के क्रम में पथ के क्षतिग्रस्त भाग में समतलीकरन करके ब्रिक वेट और लोकल बालू डालकर तदुपरान्त एक लेयर डब्लू0बी0एम0 ग्रेड ।।। डालकर पथ का मरम्मति कार्य किया गया है।

इस प्राक्कलन में ब्रिक बैट, लोकल बालू आदि के दर का दर विश्लेषण वास्तविकता के आधार पर किया गया है। इस दर में 10 प्रतिशत सी.पी. सम्मिलित नहीं है।

प्राक्कलन की घटनोत्तर तकनीकी स्वीकृति अपेक्षित है।

27/11/20 | 27/11/20 | 27/11/20
---|---|---
कनीय अभियता | सहायक अभियंता | कार्यपालक अभियंता, ग्रामीण कार्य विभाग, कार्य प्रमंडल, महनार।

# Flood Damage Repair

## GENERAL ABSTRACT OF COST

Name of Road : Andharabarh Se Murauwatpur Jane Wall Sadak main 1st To 6th KM main Restoration work

District : Vaishali

Block : Sahdei Bujurg

| Sl. No. | Item of work | Amount (In Rs.) | |
|---|---|---|---|
| 1 | Cost for Erosion control work | ~~18,35,878.93~~ ~~2263644.87~~ | 1949728.57 |
| | Total Cost of Work : | ~~2263644.87~~ ~~18,35,878.93~~ | 1949728.57 |
| | Labour Cess @ 1% | 15199.13 ~~18,358.79~~ | ~~22639.74~~ |
| | GST @ 12 % | 182269 ~~2,20,305.47~~ | ~~271643.38~~ |
| | Total Seigniorage Fee | 1,17,809.54 | |
| | Grand Total : | ~~21,92,352.73~~ | ~~2557975.19~~ 2264996.18 |

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## Flood Damage Repair

**GENERAL ABSTRACT OF COST**

**Name of Road :** **Andharabarh Se Murauwatpur Jane Wali Sadak main 1st To 6th KM main Restoration work**

**District :** **Vaishali**

**Block :** **Sahdei Bujurg**

| Sl. No. | Item of work | Amount (in Rs) | Labour Cess 1% | GST 12 % | Amount (In Rs.) | |
|---|---|---|---|---|---|---|
| 1 | Filling Brick Bat 100 A | 1791282.38 13,60,466.43 | 13604.66 | 163255.97 | ~~15,37,327.07~~ | ~~2024149.0~~ 1968143.01 |
| 2 | Levelling and Compacting | 33,065.94 | 330.66 | 3967.91 | 37,364.51 | |
| 3 | Excavation in Soil | 2,228.70 | 22.29 | 267.44 | 2,518.43 | |
| 4 | Compacting of Soil | 22,460.60 | 224.61 | 2695.27 | 25,380.48 | |
| 5 | Local Sand | 1,00,690.92 | 1006.91 | 12082.91 | 1,13,780.74 | |
| 6 | ~~Base Course~~ | ~~3,16,966.33~~ | ~~3169.66~~ | ~~38035.96~~ | ~~3,58,171.96~~ | |
| | | 1949728.54 ~~2263694.87~~ | 15189.13 ~~22636.94~~ | 182269.51 ~~271643.38~~ | 2147187.18 ~~2557975.19~~ | |
| | Sub Total : | ~~18,35,878.93~~ | ~~18358.79~~ | ~~220305.47~~ | ~~20,74,543.19~~ | ~~2203193.19~~ |
| | **Total Cost of Work :** | | | | ~~20,74,543.19~~ | ~~2203193.19~~ 2147187.18 |
| | **Total Seigniorage Fee** | | | | 1,17,809.54 | |
| | **Grand Total :** | | | | ~~21,92,352.73~~ | ~~2321002.7~~ |

~~2557975.19~~
2264996.72 L
Say Rs- 22.65 L

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27/11/20
A.E

Technically approved for Rs- 22.64 lacs.
(twenty two lacs sixty ~~five~~ four thousand only).
22.12.20
S.E

Scanned by CamScanner

## Flood Damage Repair

COST ESTIMATE FOR RESTORATION WORK

*Road* **Andharabarh Se Murauwatpur Jane Wali Sadak main 1st To 6th KM main Restoration work**

*District* **Vaishali**

*Block* **Sahdei Bujurg**

| Sl No. | Reference to MORD | Brief Description of Item | No. | Measurements L (m) | B (m) | D (m) | Unit | Quantity | Rate (Rs) | Amount (Rs) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | **Supplying Filling Brick Bat Compacted Manually** 1COA | | | | | | | | |
| | | Supplying Filling Brick Bat Compacted Manually by CI Hammer including all complete job. | | | | | | | | |
| | | | 1 | 36.0 | 6.0 | 0.60 | CUM | 129.60 | | |
| | | | 1 | 110.0 | 5.5 | 0.65 | CUM | 393.25 | | |
| | | | 1 | 90.0 | 1.7 | 0.45 | CUM | 68.85 | | |
| | | | 1 | 10.0 | 4.0 | 0.35 | CUM | 14.00 | | |
| | | | 1 | 15.0 | 4.0 | 0.35 | CUM | 21.00 | | |
| | | | 1 | 40.0 | 4.2 | 0.35 | CUM | 58.80 | | |
| | | | 1 | 55.0 | 1.75 | 0.35 | CUM | 33.69 | | |
| | | | 1 | 35.0 | 1.6 | 0.40 | CUM | 22.40 | | |
| | | | 1 | 60.0 | 4.0 | 0.35 | CUM | 84.00 | | |
| | | | 4 | 10.0 | 1.75 | 0.35 | CUM | 24.50 | | |
| | | | 1 | 6.0 | 4.00 (av.) | 1.25 (av.) | CUM | 30.00 | | 1791282.14 |
| | | Total | | 467.00 | 3.5 | 0.5 | CUM | 880.09 | ~~1545.83~~ 2035.34 | ~~13,60,4[illegible]~~ |
| 2 | 3.15 | **Levelling and Compacting ground** | | | | | | | | |
| | | Loosening, Levelling and Compacting original ground supporting embankment to facilitate placement of first layer of embankment, scarified to a depth of 150mm mixed with water at OMC and then compacted by rolling so as to achieve minimum dry density as giving in Tables 300.1 and 300.1 for embankment construction as per Technical Specification Clause 301.4.1. | | | | | | | | |
| | | | 1 | 467.0 | 3.50 (av.) | 0.50 (av.) | CUM | 817.25 | | |
| | | Total | | | | | CUM | 817.25 | 40.46 | 33,065.94 |
| 3 | 302(ii)A | **Excavation in Soil By Mechanical means** | | | | | | | | |
| | | Excavation for roadway in soil Using manual means for currying of cut earth to embankment site with a lift upto 1.5 m and lead upto 100 m as per Technical Specification Clause 302.3 | | | | | | | | |
| | | Drain | 1 | 100.0 | 0.60 (av.) | 0.50 (av.) | CUM | 30.00 | | |
| | | Total | | | | | CUM | 30.00 | 74.29 | 2,228.70 |

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| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 300 & 1200 | **Supplying Filling Local Sand** | | | | | | | | |
| | | Filling in foundation trenches as per drawing and technical specification Clause 305.3.9 | | | | | | | | |
| | | | 1 | 467.0 | 3.50 (av.) | 0.150 (av.) | CUM | 245.175 | | |
| | | Total | | | | | CUM | **245.175** | 410.69 | 1,00,690.92 |
| 3 | 302(ii)B | **Compacting of Soil By Mechanical means** | | | | | | | | |
| | | Excavation for roadway in soil Using manual means for currying of cut earth to embankment site with a lift upto 1.5 m and lead upto 100 m as per Technical Specification Clause 302.3 | | | | | | | | |
| | | | 1 | 467.0 | 3.50 (av.) | 0.50 (av.) | CUM | **817.25** | | |
| | | **Total** | | | | | CUM | **817.25** | 27.48 | 22,480.60 |
| 5 | 4.8 (3)(B) | **WBM** | | | | | | | | |
| | | WBM Grading 3<br>Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with smooth wheel roller 80-100 kN in stages to proper grade and camber, applying and brooming, stone screening to fill-up the interstices of coarse aggregate, watering and compacting to the required density Grading 3 as per Technical Specification Clause 405.80 -100 kN static roller in stages to proper grade and camber, applying and brooming, crushable screening to fill-up the interstices of coarse aggregate, watering and compacting to the required density Grading 3 as per Technical Specification Clause 405. | | | | | | | | |
| | | | 1 | 247.00 | 3.75 (av.) | 0.075 | cum | **69.47** | | |
| | | | 1 | 220 | 1.70 (av.) | 0.075 | cum | **28.05** | | |
| | | | | | | Total | Cum | **97.52** | ~~3250.30~~ | ~~3,16,966.33~~ 194728.54 |
| | | | | | | | | | TOTAL COST | ~~18,35,878.93~~ |
| | | | | | | | | | | ~~2263694.87~~ |
| | | | | | | | | | | ~~2266694.87~~ |

27/11/20
**Junior Engineer**
R.W.D. Works Section, Sahdei Bujurg

27/11/20
**Asstt. Engineer**
R.W.D. (W) Sub Division, Sahdei Bujurg

27/11/2
**Executive Engineer**
R.W.D. Works Division, Mahnar

## General rate Analysis

| Sr. No. | Reference to | Description 100 A | Unit | Quantity | Rate (Rs.) | Amount (Rs.) |
|---|---|---|---|---|---|---|
| 1 | | **Supplying Filling Brick Bat Compacted Manually** | | | | |
| | | Unit = cum | | | | |
| | | Taking output = 300 cum | | | | |
| | | **a) Labour** | | | | |
| | | Mate | day | 0.48 | 305.00 | 146.40 |
| | | Mazdoor (Skilled) | day | 2.00 | 364.00 | 728.00 |
| | | Mazdoor (Unskilled) | day | 10.00 | 287.00 | 2,870.00 |
| | | **c) Material** | | | | |
| | | **For Material** | | | | |
| | | Brick Bat | cum | 360.00 | 1,017.00 | 3,66,120.00 |
| | | **d) Overheads @ 6.0% on (a+b)** | | | | **22,191.86** |
| | | Cost for 300 cum = a+c+d | | | | 3,92,056.26 |
| | | **Rate per cum = (a+c+d)/300** | | | | **1,306.85** |
| | | **Add for Carriage Cost** | | | | |
| | | Brick Bats Equivalent to Brick (663.52*850/1000*2.832) | cum | 1.20 | 199.15 | 238.98 |
| | | **Total Cost per cum** | | | | **1,545.83** |
| | | **Rate Adopted In DPR** | | | | ~~**1,545.83**~~ 2035.34 |

2 3.15 **Compacting Original Ground**

303 (ii) Compacting original ground supporting subgrade

Loosening, Levelling and Compacting original ground

Unit = cum

Taking output = 600 cum

| | | | | | |
|---|---|---|---|---|---|
| **a)** | **Labour** | | | | |
| | Mate | day | 0.24 | 305 | 73.20 |
| | Mazdoor (Unskilled) | day | 6 | 287 | 1,722.00 |
| **b)** | **Machinery** | | | | |
| | Tractor with ripper attachment | hour | 10 | 591.4 | 5,914.00 |
| | Tractor Mounted Grading Arrangement | hour | 12 | 549.1 | 6,589.20 |
| | Water tanker 6 kl capacity | hour | 4 | 184 | 736.00 |
| | Three wheel 80-100 kN Static Roller @ 70 cum per | hour | 8.6 | 803 | 6,905.80 |
| **c)** | **Material** | | | | |
| | Water | kl | 24 | 40 | 960.00 |
| **d)** | **Overheads @ 6.0% on (a+b+c)** | | | | **1,374.01** |
| | **Cost for 600 cum = a+b+c+d** | | | | **24,274.21** |
| | **Rate per cum = (a+b+c+d)/600** | | | | **40.46** |
| | **Rate Adopted in DPR** | | | | **40.46** |

3 )0 & 12( **Filling in foundation trenches as per drawing and technical**

I. **Sand filling**

Unit = cum

| | | | | | |
|---|---|---|---|---|---|
| **a)** | **Labour** | | | | |
| | Mate | day | 0.01 | 284 | 2.84 |
| | Mazdoor (Unskilled) | day | 0.3 | 268 | 80.40 |
| **b)** | **Material** | | | | |
| | Sand (assuming 20 per cent voids) (Fine) | cum | 1.2 | 116.85 | 140.22 |
| **c)** | **Overheads @ 6% on (a+b) Fine Sand Used** | | | | **13.41** |
| | **Rate per cum = a+b+c (If fine Sand Used)** | | | | **236.87** |
| | **Add for Carriage Cost** | | | | |
| | Fine Sand | cum | 1.2 | 144.85 | 173.82 |
| | Total Cost per cum | | | | 410.69 |
| | Rate Adopted in DPR | | | | 410.69 |

4 4.8 (3)(B) **WBM Grading 3**

Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with smooth wheel roller 80-100 kN in stages to proper grade and camber, applying and brooming, stone screening to fill-up the interstices of coarse aggregate, watering and compacting to the required density Grading 3 as per Technical Specification Clause 405.

**(B)** By Mechanical Means

Unit = cum

Taking output = 360 cum

| | | | | | |
|---|---|---|---|---|---|
| **a)** | **Labour** | | | | |
| | Mate | day | 0.68 | 305 | 207.40 |
| | Mazdoor (Skilled) | day | 2 | 364 | 728.00 |
| | Mazdoor (Unskilled) | day | 15 | 287 | 4,305.00 |
| **b)** | **Machinery** | | | | |
| | Motor grader 110 HP @ 50 cum per hour for sprea | hour | 7.2 | 591.40 | 4,258.08 |
| | Three wheel 80-100 kN static roller @ 8 cum per h | hour | 45 | 803.00 | 36,135.00 |
| | Water tanker 6 kl capacity | hour | 24 | 184.00 | 4,416.00 |
| **c)** | **Material (Refer Tables 400.7, 8, 9 and 10)** | | | | |
| | Aggregate | | | | |
| | Grading 3 53 mm to 22.4 mm @ 0.91 cum per 10 | cum | 435.6 | 511.44 | 2,22,783.26 |
| | **Type B** 11.2 mm for **Grading 3** @ 0.18 cum per 10 sqm | cum | 86.4 | 397.73 | 34,363.87 |
| | Water | kl | 144 | 40 | 5,760.00 |
| **d)** | **Overheads @ 6.0% on (a+b+c)** | | | | **18,777.40** |
| | Cost for 360 cum = a+b+c+d | | | | 3,31,734.01 |
| | **Rate per cum = (a+b+c+d)/360** | | | | 921.48 |
| | **Add Cost of Carriage :** | | | | |
| | Grading 3 53 mm to 22.4 mm | cum | 1.21 | 1,606.08 | 1,943.36 |
| | Moorum | cum | 0.24 | 1,606.08 | 385.46 |
| | Total Cost per cum | | | | 3250.30 |
| | **Rate Adopted in DPR** | | | | 3250.30 |

3.5 302 (ii) **Excavation in Soil By Mechanical means with lead up to**

Excavation for roadway in soil Using manual means for carrying of cut earth to

Unit = cum

Taking output = 180 cum

Scanned by CamScanner

| | | | | | |
|---|---|---|---|---|---|
| | **a) Labour** | | | | |
| | Mate | day | 0.08 | 305.00 | 24.40 |
| | Mazdoor (Unskilled) | day | 2.00 | 287.00 | 574.00 |
| | Dozer D-50 for spreading @ 50 cum per hour(cutting with pu | hour | 3.60 | 3,337.90 | 12,016.44 |
| | **b) Overheads @ 10.0% on (a)** | | | | 756.89 |
| | **c)** | | | | |
| | Cost for 180 cum = a+b+c+d | | | | 13,371.73 |
| | Rate per cum = (a+b+c+d)/1\80 | | | | 74.29 |
| | Rate Adopted in DPR | | | | 74.29 |
| B | Compaction Part | | | | |
| | Taking output = 100 cum | | | | |
| a) | Labour | | | | |
| | Mate | day | 0.02 | 305.00 | 6.10 |
| | Mazdoor (Unskilled) | day | 0.50 | 287.00 | 143.50 |
| b) | Machinery | | | | 0.00 |
| | Tractor Mounted Grading Arrangement | hour | 1.00 | 591.40 | 591.40 |
| | Water tanker 6 kl capacity | hour | 2.00 | 184.00 | 368.00 |
| | Three wheel 80-100 kN Static Roller @ 80 cum per hour | hour | 1.25 | 803.00 | 1,003.75 |
| c) | Material | | | | |
| | Water | kl | 12.00 | 40.00 | 480.00 |
| | Compensation for earth taken from private land | cum | 100.00 | 0.00 | 0.00 |
| d) | Overheads @ 6.0 % on (ab+c) | | | | 155.57 |
| e) | | | | | |
| | Cost for 100 cum = a+b+c+d+e | | | | 2,748.32 |
| | Rate per cum = (a+b+c+d+e)/100 | | | | 27.48 |
| | Add DPR Cost | | | | 102.00 |

| SL No. | SDB SL No. | MORD Ref No. | DESCRIPTION | Unit | Quantity | Rate | Amount in Rs | Total material Qty. required (Cum) | Total Amount | Add 10 % Seigniorage Fee |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | **Supplying Filling Brick Bat Compacted Manually** | | | | | | | |
| | | | Supplying Filling Brick Bat Compacted Manually by CI Hammer including all complete job. | | | | | | | |
| | | | Unit = cum | | | | | | | |
| | | | Taking output = 300 cum | | | | | | | |
| | | | **Material** | | | | | | | |
| | | | Brick Bat | cum | 360.00 | 1017.00 | 366120.00 | | | |
| | | | Cost for 300 cum = a | | | | 366120.00 | | | |
| | | | **Rate per cum = (a)/300** | cum | | | 1220.40 | | | |
| | | | | | | **Total Cost** | **1220.40** | 880.09 | 1074059.40 | 107405.940 |
| 2 | 4.7 | 405 | **Water Bound Macadam with Stone Screening Type "B" Gr- III** | | | | | | | |
| | ( 3-B ) | | **WBM Grading 3** | | | | | | | |
| | | | Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including | | | | | | | |
| | | (A) | **By Mechnical Means** | | | | | | | |
| | | | Unit = cum | | | | | | | |
| | | | Taking output = 360 cum | | | | | | | |
| | | | **Material (Refer Tables 400.7, 8, 9 and 10)** | | | | | | | |
| | | | **Aggregate** | | | | | | | |
| | | | **Grading 3** 53 mm to 22.4 mm @ 0.91 cum per 10 sqm for | Cum | 435.60 | 511.44 | 222783.26 | | | |
| | | | **Stone Screening** | Cum | | | | | | |
| | | | Type B 11.2 mm for Grading 3 @ 0.18 cum per 10 sqm | Cum | 86.40 | 397.73 | 34363.87 | | | |
| | | | | | | | **257147.14** | | | |
| | | | Cost for 360 cum = A | | | | **714.30** | | | |
| | | | Rate per cum = (A)/360 | Cum | | | | | | |
| | | | | | | **Total Cost** | **714.30** | 97.52 | 69657.59 | 6965.759 |
| 1 | | | **Supplying Filling Local Sand** | | | | | | | |
| | | | Fillling in foundation trenches as per drawing and technical specification Clause 305.3.9 | | | | | | | |
| | | | Unit = cum | | | | | | | |
| | | | Taking output = 300 cum | | | | | | | |
| | | | **Material** | cum | 1.20 | 116.85 | 140.22 | | | |
| | | | Local Sand | | | | 140.22 | | | |
| | | | Cost 1 cum = a | cum | | | 140.22 | | | |
| | | | **Rate per cum = (a)** | | | **Total Cost** | **140.22** | 245.18 | 34378.44 | 3437.844 |
| | | | | | | | | **Total Seigniorage Fee** | | **117809.542** |

25/11/20
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# RATE ANALYSIS FOR CARRIAGE OF BASE MATERIAL

| | | By Truck | | By Tipper |
|---|---|---|---|---|
| Carriage Cost (Surfaced Road): | 6.83 | Rs 6.83 Per Tonne Per Km | 7.60 | Rs 7.6 Per Tonne Per Km |
| Carriage Cost (Un Surfaced Road): | 8.22 | Rs 8.22 Per Tonne Per Km | 9.20 | Rs 9.2 Per Tonne Per Km |
| Carriage Cost (Kacha Road): | 16.54 | Rs 16.54 Per Tonne Per Km | 18.50 | Rs 18.5 Per Tonne Per Km |

**NAME OF ROAD : Andharabarh Se Murauwatpur Jane Wali Sadak main 1st To 6th KM main Restoration work**

**BLOCK : Sahdei Bujurg**

**DISTRICT:- Vaishali**

| S.NO. | Material | Railway Frieght (Rs) | Lead Distance(Km) | | | Loading/ Unloading | Unit | M.F. | Carriage Cost Per Km | | | Total Carriage Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Surface Road | Unsurfaced Road | Kaccha Road | | | | Surface Road | Unsurfaced Road | Kaccha Road | |
| 2 | Crushed Stone cum Aggregate including GrIII | 929.23 | 49 | 0 | 0 | 81.01 | Cum | 8/4.99 | 595.84 | 0.00 | 0.00 | 1606.08 |
| 7 | Fine Sand(Local Sand) | | 2 | 0 | 1 | 96.53 | Cum | 8/5 | 21.86 | 0.00 | 26.46 | 144.85 |
| 13 | Brick | | 7 | 0 | 1 | 406.12 | 1000 No. | 8/2 | 191.24 | 0.00 | 66.16 | 663.52 |
| 13 | Brick Bats | | 7 | 0 | 1 | 406.12 | Cum | 8/4.59 | 83.33 | 0.00 | 28.83 | 518.28 |

27/11/20
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# Analysis for Carrige Through Railway from Quarry Site to Work Site

## Sheikhpura to Karpoorigram

### Material - G.S.B & Gr- III Materials

**Quarry Site to Sheikhpura Railway Yard (By Ro**

Carriage Cost & Lead in Km

| | | Pucca | Unsurfaced | | Loading & Unloading | | Total |
|---|---|---|---|---|---|---|---|
| i) | Carriage from Quary to Railyard - 5 Km (Surface -4 & Unsurface -1 ) by Mechnical Means | | | | | | |
| | $\frac{8.00}{4.99}$ x 7.60 x 4.00 Km = Rs 48.74 | + $\frac{8.00}{4.99}$ x 9.20 | x 1.00 Km | = Rs 14.75 | + Rs 81.01 | = | Rs 144.50 |
| ii) | Loading & Unloading Charge to Rlywagon (By Manual Means) | | | | | = | Rs 178.30 |
| | | | | | | | Rs 322.80 |
| iii) | Less for O.H & C.P - 322.8 / 1.06 = | | | | | "A" | Rs 304.53 |
| | Sheikhpura Railway Yard to Karpoorigram | Railway Yard = | 122.00 Km | | | | |
| | Railway freight charge from Sheikhpura Railway station | = | For 1 MT | 122.00 Km | = Rs 231.30 | = | Rs 231.30 |
| | Busy Season charge 15% of Railway freight charge | = | For 1 MT | | = 15% | = | Rs 34.70 |
| | Railway Development Charge to 5% of Railway freight | | For 1 MT | | = 5% | = | Rs 11.57 |
| | Railway Terminal Charge 40 Rs/- | | | | 2 x 40 | = | Rs 80.00 |
| | | | | | | = | Rs 357.57 |
| | Total | = | For 1 MT | | | | Rs 357.57 |
| | Rail Fright - 8/4.99 x 357.57 | = | For 1 m3 | | | "B" | Rs 572.10 |
| | **Gross Cost for Railway freight charge (A+B)** | | **For 1 M3** | | = | = | Rs 876.63 |
| | | | **Add 6% Overhead Charge** | | = 6% | = | Rs 52.60 |
| | | | **Add 0% Contractor Profit** | | = 0% | = | Rs 0.00 |
| | **Gross Rate for Railway freight Charge** | = | **For 1 Cum** | | | = | Rs 929.23 |

# BASIC RATES

| Sl. No. | Description of Labour | Unit | Rate (Rs.) |
|---|---|---|---|
| L-01 | Bhisti | day | 287 |
| L-02 | Bitumen Sprayer(semi skilled) | day | 302 |
| L-03 | Blacksmith,special | day | 388 |
| L-04 | Blaster, 2nd class | day | 477 |
| L-05 | Carpenter 1st Class | day | 388 |
| L-06 | Chips spreader, semi-skilled | day | 345 |
| L-07 | Chiseller | day | 364 |
| L-08 | Dresser (Skilled) | day | 367 |
| L-09 | Driller | day | 345 |
| L-10 | Electrician,skilled | day | 367 |
| L-11 | Fitter, skilled | day | 395 |
| L-12 | Mason (1st class) | day | 388 |
| L-13 | Mason (2nd Class) | day | 345 |
| L-14 | Mate | day | 305 |
| L-15 | Mazdoor (Unskilled) | day | 287 |
| L-16 | Mazdoor (Semi skilled) | day | 299 |
| L-17 | Mazdoor (Skilled) | day | 364 |
| L-18 | Painter (Ist class) | day | 364 |
| L-19 | Plumber, Special | day | 364 |
| L-20 | Surveyor | day | 349 |
| L-21 | White Washer | day | 364 |