

ORIGINAL



## **Building Design Authority (P) Ltd**

*in joint Venture with*

**B.N. Consultancy Pvt. Ltd and**

**PLUSH Engineering & architects (P) Ltd Kathmandu.**

## **Monthly Progress Report**

**Regional Urban Development Project (RUDP)**

**Project Implementation Unit**

**Biratnagar, Nepal**



***October 2019***

**Biratnagar Metropolitan City (BMC), Nepal**

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## EXECUTIVE SUMMARY

This Project Monitoring Report mainly covers the Progress achieved in the component of Regional Urban Development Project (RUDP) in Biratnagar Metropolitan City, Nepal. The information has been provided in the following Chapters are mentioned below:

1. **Introduction/ Background-** It provide brief Account on the Project and its Background stating why, how and when the Project was started in Biratnagar Metropolitan City.
2. **Salient Feature of Contract Package: RUDP/ICB/BRT/2-** It provides brief Account of Contract Data with Major components of works to be carried out.
3. **Sub Project Components-** It provides a brief Account on the various Sectors of the Project component summarizing the respective Progress such as Sewer Line, Storm Water Drain, Road side Drain, Roads and Lanes and Electrification Work if any. This Chapter further covers Environment Mitigation Measures and Social Safeguard measures.
4. **Objective and Scope of the Works-** This Chapter briefly describes the expected output of the Project and Scope of Consultant regarding execution of Work.
5. **Progress of Sub – Project Components-** This Chapter comprises the status of Work stating what kind of works are under Progress and how much Progress has been achieved till date. It further elaborates on the status of actual achievement versus the Targeted achievement till date. Sometimes, the project gets delayed due to unforeseen obstacles which are rampant in the case of Nepal. Such events are also enlisted to clarify the reason for delay in the project.
6. **Details of Pre Cast Activities-** In the urban area, as ongoing projects creates a lot of disturbances and difficulties in the life of the people living in the project area, the work has to be conducted in the speedy manner to finish it as soon as possible. Precast of the project components are the best alternative to overcome this issue and details of precast activities are provided in this chapter.
7. **Contractor's Manpower and Contractor's Equipment-** Chapter 7 and Chapter 8 deal with summary of Manpower and Equipment respectively stating whether Resources owned by the Contractor are sufficient for the execution of Contract.



## 1. PROJECT DESCRIPTION

### 1.1. INTRODUCTION/BACKGROUND

GoN has negotiated loan with Asian Development Bank for the Regional Urban Development Project (RUDP) in Nepal. The RUDP, in the line with ADB's water and urban operation plans, will construct and upgrade urban infrastructure in eight towns in the Terai Region of Nepal, improve operational effectiveness of these eight municipalities. The project will also build institutional capacity of DUDBC for urban planning, project planning and project preparation in order to proactively shape urbanization in Nepal and implement the National Urban development strategy. Biratnagar is one of the eight municipal towns included in the RUDP. The subcomponent of the RUDP covers the construction and improvement of sewerage, drainage and roads and design of Integrated Solid Waste Management System for Biratnagar Municipality. Building Design Authority (P) Ltd (Nepal), B.N. Consultancy Pvt. Ltd and PLUS Engineers & Architects (P) Ltd Kathmandu and have entered for a Contract of Consulting Services with Regional Urban Development Project (RUDP), Project Implementation Unit (PIU), Biratnagar Metropolitan City on 28<sup>th</sup> October 2017.

Regional Urban Development Project (RUDP) the Department of Urban Development and Building Construction (DUDBC), under the Ministry of Urban Development (MUD) through the Government of Nepal (GoN) has received the loan from Asian Development Bank (ADB) Loan 47252-NEP.

In line with ADB's Strategy 2020 and based on Nepal's fundamental long term needs and on the GoN's priority, the ADB is continuing to support the Government in (i) improving urban infrastructure; improving access to water supply and sanitation (ii) supporting urban environmental improvement (iii) strengthening the operation and management skills of local governments. The Regional Urban Development Project (RUDP) is forward to promote healthy cities by creating healthier urban environments and was formulated under the PPTA 2010.



## 2. CONTRACT DATA: - RUDP/ICB/BRT/2

| General Features  |   |
|---|---|
| Name of Project   | Regional Urban Development Project(RUDP)  |
| Executing Agency  | Government of Nepal,  |
|   | Ministry of Urban Development   |
|   | Department of Urban Development and Building Construction (DUDBC)   |
| Implementing Agency   | Biratnagar Metropolitan City, Biratnagar  |
| Funded By   | Asian Development Bank & Government of Nepal  |
| Package   | Construction and Completion of Sewerage, Drainage, Road, Footpath and Road furniture works  |
| Contract No.  | RUDP/ICB/BRT/2  |
| Location  | Biratnagar Metropolitan City, Biratnagar  |
| Consultant  | Building Design Authority (P) LTD in Joint Venture With B.N. consultancy Pvt and PLUS Engineers and Architects (P) Ltd Kathmandu. |
| Date of Sign of Design and Supervision Consulting Service         | 28th August 2017  |
| Date of Commencement of Design and Supervision Consulting Service | 6th September 2017  |
| Date of Completion  | 5th September 2020  |
| Contractor  | ZHONGHENG Construction Group International Engineering Co Ltd. Beijing, China.  |
| Date of Agreement Made  | 10 <sup>th</sup> October 2017   |
| Date of Commencement  | 2 <sup>nd</sup> November 2017   |
| Date of Completion  | 1 <sup>st</sup> November 2019   |
| Contract Amount including PS and VAT                              | NRs. 2,611,092,249.63   |
| Contract Amount including PS and VAT (Corrected)                  | NRs. 2,611,088,390.60   |
| Progress  |   |
| Road Rehabilitation (Asphalt)                                     | 53.86%  |
| Sewer Line  | 88.73%  |
| Storm Drain   | 100.00%   |
| Road Side Drain   | 114.50%   |



| General Features  |  |
|---|--|
| Integrated Solid Waste Management (ISWM) Design   | Inception Report as well as Stakeholder's Analysis, Communication Strategy and Consultation Plan for Integrated Solid Waste Management (ISWM) has already been submitted. Due to Socio Environment Problem, Progress of Integrated Solid Waste Management (ISWM) design has been hindered.   |
| Physical Progress up to date  | <p><b>With respect to Revised Work Program-01:</b><br/> <b>Planned : 99.91%, Actual : 79.64%; Lead(+) or Lag(-) by (-) 20.27% Lag</b></p> <p>Physical progress lagging due to delay in relocation of electrical poles, shifting of telecom poles on time by Nepal Telecom (NTC), delay on approval of VO-01 and unclear Right of Way (RoW), etc.</p> |
| Financial Progress up to date ( <i>on the basis of IPC forwarded for disbursement</i> ) | <p>In Percentage: 65.60%, In Figure: NRs. <b>1,712,795,677.24</b> (including VAT and PS) up to IPC – 11.</p> <p><b>In Words:</b> NRs. One Billion Seven Hundred Twelve Millions Seven Hundred Ninety Five Thousand Six Hundred Seventy Seven and Twenty Four Paise Only.</p>   |

### 3. SUMMARY OF PROGRESS STATUS OF ALL MAJOR COMPONENTS

| S. No.   | Description              | Unit | BoQ Quantity | Progress up to date | Remaining | Progress Status expressed in (%) | Remarks |
|----------|--------------------------|------|--------------|---------------------|-----------|----------------------------------|---------|
| <b>1</b> | <b>Sewer Line</b>        |      |              |                     |           |                                  |         |
| a        | HDPE/RCC                 | m    | 20,082.00    | 17,818.50           | 2,263.50  | 88.73%                           |         |
| b        | Manhole                  | No.  | 685.00       | 549.00              | 136.00    | 80.15%                           |         |
| c        | Sewer Inlet              | No.  | 1,010.00     | 604.00              | 406.00    | 59.80%                           |         |
| d        | House Connection         | No.  | 3,784.00     | 1,471.00            | 2,313.00  | 38.87%                           |         |
| <b>2</b> | <b>Storm Water Drain</b> |      |              |                     |           |                                  |         |



| S. No.   | Description            | Unit | BoQ Quantity | Progress up to date | Remaining  | Progress Status expressed in (%) | Remarks                |
|----------|------------------------|------|--------------|---------------------|------------|----------------------------------|------------------------|
| a        | RCC Drain              | m    | 652.80       | 585.00              | 0.00       | 100.00%                          | Revised Length =585m   |
| b        | Piles                  | No.  | 132.00       | 138.00              | 0.00       | 100.00%                          | Exceeded 6 Nos. Piles. |
|          |                        |      |              |                     |            |                                  |                        |
| <b>3</b> | <b>Road</b>            |      |              |                     |            |                                  |                        |
| a        | Subgrade               | m    | 73,860.00    | 50,971.31           | 22,888.69  | 69.01%                           |                        |
| b        | Sub base               | m    | 73,860.00    | 50,642.21           | 23,217.79  | 68.57%                           |                        |
| c        | Base                   | m    | 73,860.00    | 43,917.42           | 29,942.58  | 59.46%                           |                        |
| d        | Prime                  | m    | 73,860.00    | 39,784.40           | 34,075.60  | 53.86%                           |                        |
| e        | Asphalt                | m    | 73,860.00    | 39,784.40           | 34,075.60  | 53.86%                           |                        |
|          |                        |      |              |                     |            |                                  |                        |
| <b>4</b> | <b>Road Side Drain</b> | m    | 26,050.00    | 29,827.19           | (3,777.19) | 114.50%                          | Exceeded               |

### 3.1. SUB PROJECT COMPONENTS

#### 3.1.1. SEWER LINES

Trunk Line T1 & T2 were already completed in STIUEIP (Secondary Town Integrated Urban Environmental Improvement Project) and remaining part of sewer lines in T4 completed and T3 have been identified and necessary survey and construction works were performed, almost all the lines were completed except some secondary sewer lines of T3. Details of proposed sewer lines are as below: -



**Table 1: PROPOSED ALL MAJOR COMPONENTS OF THE PROJECT**

| S. No.   | Description   | Unit       | Original Quantity |
|----------|---|------------|-------------------|
| <b>1</b> | <b>Sewerage Pipe Supply and Installation</b>        | m          | <b>20,082.00</b>  |
|          | <b>Reinforced Concrete Pipe laying and jointing</b> |            | <b>2241.00</b>    |
|          | Line T2 (Secondary)                                 | m          | 206.00            |
|          | Line T3 (Trunk)                                     | m          | 1905.00           |
|          | Line T4 (Trunk)                                     | m          | 130.00            |
|          | <b>HDPE laying and jointing</b>                     | m          | <b>17,841.00</b>  |
|          | Line T1 (Secondary)                                 | m          | 1,825.00          |
|          | Line T2 (Secondary)                                 | m          | 3,927.00          |
|          | Line T3 (Secondary)                                 | m          | 9,997.00          |
|          | Line T4 (Secondary)                                 | m          | 2,092.00          |
| <b>2</b> | <b>Manhole ( Brick / RCC)</b>                       | <b>no.</b> | <b>685.00</b>     |
| <b>3</b> | <b>Sewer Inlet</b>                                  | <b>no.</b> | <b>1,010.00</b>   |
| <b>4</b> | <b>House Connection</b>                             | <b>no.</b> | <b>3,784.00</b>   |
| <b>5</b> | <b>Reinstatement of Roads</b>                       | <b>km</b>  | <b>73.86</b>      |
| <b>6</b> | <b>Road side Drain</b>                              | <b>Km</b>  | <b>26.05</b>      |
| <b>7</b> | <b>Storm Water Drain</b>                            | <b>m</b>   | <b>652.8</b>      |



**Table: - 2 PHYSICAL PROGRESS IN SEWER LINES till date**

| SN              | Description    | BoQ        |                | Up to Pre Month |                | This month |                | Total to date |                | Progress % |
|-----------------|----------------|------------|----------------|-----------------|----------------|------------|----------------|---------------|----------------|------------|
|                 |                | Length (m) | Manhole (Nos.) | Length (m)      | Manhole (Nos.) | Length (m) | Manhole (Nos.) | Length (m)    | Manhole (Nos.) |            |
| Hume Pipe:      |                |            |                |                 |                |            |                |               |                |            |
| 1               | Hume pipe (T2) | 206.00     | 6.00           | 205.00          | 6.00           |            |                | 205.00        | 6.00           |            |
| 2               | Hume pipe (T3) | 1,905.00   | 58.00          | 1,632.50        | 25.00          |            |                | 1,632.50      | 25.00          |            |
| 3               | Hume Pipe (T4) | 130.00     | 4.00           | 130.00          | 4.00           |            |                | 130.00        | 4.00           |            |
| Subtotal in (m) |                | 2,241.00   | 68.00          | 1,967.50        | 35.00          |            |                | 1,967.50      | 35.00          |            |
| HDPE Pipe:      |                |            |                |                 |                |            |                |               |                |            |
| 1               | HDPE (T1)      | 1,825.00   | 57.00          | 1,743.20        | 54.00          |            |                | 1,743.20      | 54.00          |            |
| 2               | HDPE (T2)      | 3,927.00   | 147.00         | 3,153.40        | 121.00         |            |                | 3,153.40      | 121.00         |            |
| 3               | HDPE (T3)      | 9,997.00   | 316.00         | 8,902.50        | 283.00         |            |                | 8,902.50      | 283.00         |            |
| 4               | HDPE (T4)      | 2,092.00   | 68.00          | 2,051.90        | 56.00          |            |                | 2,051.90      | 56.00          |            |
| Subtotal in (m) |                | 17,841.00  | 588.00         | 15,851.00       | 514.00         |            |                | 15,851.00     | 514.00         |            |



| SN    | Description | BoQ        |                | Up to Pre Month |                | This month |                | Total to date |                | Progress % |
|-------|-------------|------------|----------------|-----------------|----------------|------------|----------------|---------------|----------------|------------|
|       |             | Length (m) | Manhole (Nos.) | Length (m)      | Manhole (Nos.) | Length (m) | Manhole (Nos.) | Length (m)    | Manhole (Nos.) |            |
| Total |             | 20,082.00  | 656.00         | 17,818.50       | 549.00         |            |                | 17,818.50     | 549.00         | 88.73%     |

| SN | Description      | BoQ (Nos.) | Up to Pre Month | This month | Total to date | Progress %   |
|----|------------------|------------|-----------------|------------|---------------|--------------|
| 1  | Sewer inlet      | 1,010.00   | 604.00          | 0.00       | 604.00        | <b>59.80</b> |
| 2  | House connection | 3,784.00   | 1,449.00        | 22.00      | 1,471.00      | <b>38.87</b> |





### 3.1.2. STORM WATER DRAIN

The storm water drain CN2, and CN3 has been provisioned in Regional Urban Development Project (RUDP). The Contractor has already completed the works except some minor works at inlet and outlet which have been proceeding soon. The detail of the progress is shown in the table:

**Table: 3 PROPOSED and PHYSICAL PROGRESS in STORM WATER DRAINS till date.**

| S<br>N | Name of<br>Drain                   | Length in m         |         |              |               |                    | Type<br>of<br>Drain | Work Completed |    |     |    | Length<br>of<br>Covered<br>Drain in<br>m | Remarks                      |
|--------|------------------------------------|---------------------|---------|--------------|---------------|--------------------|---------------------|----------------|----|-----|----|--|------------------------------|
|        |                                    | Origin<br>al        | Revised | Progress     |               | Cum<br>ulativ<br>e |                     | Brick          |    | RCC |    |  |                              |
|        |                                    |                     |         | Previo<br>us | This<br>Month |                    |                     | m              | m³ | m   | m³ |  |                              |
| 1      | CN2-CN3<br>(Chyangh<br>Baari Nala) | 652.89              | 585.00  | 585.00       |               | 585                | RCC,<br>closed      |                |    | 585 |    | 585                                      | completed                    |
| 2      | CN2-CN3<br>(Chyangh<br>Baari Nala) | 132<br>Nos<br>piles | 138     | 138          |               | 138<br>Nos.        |                     |                |    |     |    |  | Piling<br>works<br>completed |

### 3.1.3. ROADS AND LANES

Most of the roads/lanes in Biratnagar are in a poor state due to lack of periodic maintenance, and need improvement where as some of the roads are graveled and would benefit from upgrading. In the areas where drainage and sewerage works are proposed there will be significant impact on the existing roads. The Project has considered on design based on reinstatement, rehabilitation and upgrading of existing roads length 73.86 km. Some of the roads of the project has been completed and some of them are in the process of being upgraded.

Out of 73.86 km. about 50.64 Km. has been attempted for Sub Base but due to start unseasonal monsoon, asphalt work is delaying.

About 39.78 km. asphalt work is completed. The summary of physical progress is presented below: -



**Table No:-4 PROPOSED and PHYSICAL PROGRESS of pavement works till date**

| SN | Road Number | Name of Road       | Length in m        |            |          | Work Completed |          |          |        | Paint | Remarks |
|----|-------------|--------------------|--------------------|------------|----------|----------------|----------|----------|--------|-------|---------|
|    |             |                    | Progress           |            | Total    | Sub-base       | Base     | Asphalt  | RCC    |       |         |
|    |             |                    | Previous (Revised) | This Month |          | m              | m        | m        | m      | m     |         |
| 1  | R42         | Bhagwati Marg      | 218.00             |            | 218.00   | 218.00         | 218.00   | 218.00   |        |       |         |
| 2  | R5          | College Road       | 650.00             |            | 650.00   | 650.00         | 650.00   | 544.50   |        |       |         |
| 3  | B2          | Gauri Shankar Marg | 2,152.00           |            | 2,152.00 | 2,152.00       | 2,152.00 | 2,152.00 | 210.00 |       |         |
| 4  | R65         | Satghumti Marg     | 320.00             |            | 320.00   | 320.00         | 320.00   |          |        |       |         |
| 5  | R107        |                    | 215.00             |            | 215.00   | 215.00         | 215.00   | 174.00   |        |       |         |
| 6  | R107 a      |                    | 50.00              |            | 50.00    | 50.00          | 50.00    |          |        |       |         |
| 7  | R104        | VIP Marg           | 273.00             |            | 273.00   | 273.00         | 273.00   | 273.00   |        |       |         |
| 8  | R8          | Madhumara Marg     | 600.00             |            | 600.00   | 600.00         | 600.00   | 582.00   |        |       |         |



| SN | Road Number | Name of Road     | Length in m        |            |          | Work Completed |          |          |     |          | Remarks |
|----|-------------|------------------|--------------------|------------|----------|----------------|----------|----------|-----|----------|---------|
|    |             |                  | Progress           |            | Total    | Sub-base       | Base     | Asphalt  | RCC | Paint    |         |
|    |             |                  | Previous (Revised) | This Month |          | m              | m        | m        | m   | m        |         |
| 9  | B1          | Kanchan Marg     | 1,173.00           |            | 1,173.00 | 1,173.00       | 1,106.00 | 1,106.00 |     | 1,106.00 |         |
| 10 | R21         | Pratibha Marg    | 1,330.00           |            | 1,330.00 | 1,330.00       | 1,330.00 | 1,330.00 |     | 1,012.80 |         |
| 11 | B3          | Keshaliya Marg   | 1,574.00           |            | 1,574.00 | 1,574.00       | 1,574.00 | 1,574.00 |     |          |         |
| 12 | S13         |                  | 1,617.00           |            | 1,617.00 | 1,617.00       | 1,417.00 | 1,417.00 |     | 1,812.60 |         |
| 13 | R12         |                  | 880.00             |            | 880.00   | 880.00         | 880.00   | 740.00   |     |          |         |
| 14 | R12         | Kanchha Dai Marg | 900.00             |            | 900.00   | 900.00         | 900.00   | 289.50   |     |          |         |
| 15 | Rani site   | Rani             | 4,023.00           |            | 4,023.00 | 4,023.00       | 4,023.00 | 4,023.00 |     |          |         |
| 16 | R16         | Satya Marg       | 604.00             |            | 604.00   | 604.00         | 604.00   | 604.00   |     |          |         |
| 17 | R26         | Pasang Marg      | 654.00             |            | 654.00   | 654.00         | 654.00   | 654.00   |     |          |         |
| 18 | R28         | Pustakalaya Marg | 635.00             |            | 635.00   | 635.00         | 339.20   | 339.20   |     |          |         |



| SN | Road Number | Name of Road          | Length in m        |            |        | Work Completed |        |         |     |        | Remarks |
|----|-------------|-----------------------|--------------------|------------|--------|----------------|--------|---------|-----|--------|---------|
|    |             |                       | Progress           |            | Total  | Sub-base       | Base   | Asphalt | RCC | Paint  |         |
|    |             |                       | Previous (Revised) | This Month |        | m              | m      | m       | m   | m      |         |
| 19 | R27         | Peepal Marg           | 734.32             |            | 734.32 | 734.32         | 734.32 | 734.32  |     | 639.20 |         |
| 20 | R25         | Devi Marg             | 580.00             |            | 580.00 | 580.00         | 580.00 | 561.70  |     |        |         |
| 21 | R24         | Prabhat Marg          | 518.15             |            | 518.15 | 518.15         | 518.15 | 518.15  |     |        |         |
| 22 | R37         | Banglamukhi Marg      | 477.00             |            | 477.00 | 477.00         | 477.00 | 477.00  |     |        |         |
| 23 | R7          | Manakamana Marg       | 542.00             |            | 542.00 | 542.00         | 542.00 | 542.00  |     |        |         |
| 24 | R7          | in between R18 to R27 | 400.00             |            | 400.00 | 400.00         | 400.00 | 375.00  |     |        |         |
| 25 | R30         | Shanti Marg           | 123.10             |            | 123.10 | 123.10         | 123.10 | 123.10  |     |        |         |
| 26 | R9          | Fadindra Marg         | 119.00             |            | 119.00 | 119.00         | 119.00 | 119.00  |     |        |         |
|    | R9          |                       | 150.00             |            | 150.00 | 150.00         | 150.00 | 140.00  |     |        |         |
| 27 | S11         | Samrat Marg           | 660.00             |            | 660.00 | 660.00         | 504.60 | 504.60  |     | 504.60 |         |



| SN | Road Number | Name of Road         | Length in m        |            |          | Work Completed |          |         |     | Remarks |       |
|----|-------------|----------------------|--------------------|------------|----------|----------------|----------|---------|-----|---------|-------|
|    |             |                      | Progress           |            | Total    | Sub-base       | Base     | Asphalt | RCC |         | Paint |
|    |             |                      | Previous (Revised) | This Month |          | m              | m        | m       | m   |         | m     |
| 28 | R22         | Amar Marga           | 367.65             |            | 367.65   | 367.65         | 367.65   | 367.65  |     |         |       |
| 29 | R29         | Shanti Marg          | 684.70             |            | 684.70   | 684.70         | 684.70   | 684.70  |     | 585.60  |       |
| 30 | R36         | Gaurav Marg          | 220.00             |            | 220.00   | 220.00         | 220.00   | 220.00  |     | 440.00  |       |
| 31 | R33         | Tarun Marg           | 280.00             |            | 280.00   | 280.00         | 280.00   | 280.00  |     |         |       |
| 32 | R64         | Satya Narayan Marg   | 121.00             |            | 121.00   | 121.00         | 121.00   | -       |     |         |       |
| 33 | R8          |                      | 225.00             |            | 225.00   | 225.00         | 225.00   | 225.00  |     |         |       |
| 34 | N36         |                      | 190.00             |            | 190.00   | 190.00         | 186.95   | 186.95  |     |         |       |
| 35 | R188        | Shakti Marg          | 120.00             |            | 120.00   | 120.00         | 120.00   | 120.00  |     |         |       |
| 36 | R2          | Main Road            | 2,800.00           | -          | 2,800.00 | 2,800.00       | 1,418.20 | 937.11  |     | 350.00  |       |
| 37 | T3 Line 6A  | Pandit Meghnath Marg | 220.00             |            | 220.00   | 220.00         | 220.00   | 220.00  |     |         |       |



| SN | Road Number    | Name of Road     | Length in m        |            |        | Work Completed |        |         |     | Remarks |       |
|----|----------------|------------------|--------------------|------------|--------|----------------|--------|---------|-----|---------|-------|
|    |                |                  | Progress           |            | Total  | Sub-base       | Base   | Asphalt | RCC |         | Paint |
|    |                |                  | Previous (Revised) | This Month |        | m              | m      | m       | m   |         | m     |
| 38 | T2 Line 24C    | Nava Jyoti Marg  | 205.00             |            | 205.00 | 205.00         |        |         |     |         |       |
| 39 | T2 Line 24D    | Nava Jyoti Marg  | 210.00             |            | 210.00 | 210.00         |        |         |     |         |       |
| 40 | R63 (DSP Road) | DSP Road         | 420.00             |            | 420.00 | 420.00         | 395.00 | 395.00  |     |         |       |
| 41 | R90            | Shakti Marg      | 320.00             |            | 320.00 | 320.00         | 320.00 | 320.00  |     | 640.00  |       |
| 42 | R77            | Arniko Marg      | 80.00              |            | 80.00  | 80.00          | 80.00  | 80.00   |     |         |       |
| 43 | R76            | Mitra Marg       | 270.00             |            | 270.00 | 270.00         | 270.00 | 270.00  |     | 541.20  |       |
| 44 | R183           | Nava Jyoti Marg  | 240.00             |            | 240.00 | 240.00         | 220.00 | 220.00  |     |         |       |
| 45 | T1 L16B        | Xenial Front     | 210.00             |            | 210.00 | 210.00         | 205.00 | 205.00  |     |         |       |
| 46 | T1L16A         | Xenial South     | 180.00             |            | 180.00 | 180.00         | 180.00 | 180.00  |     |         |       |
| 47 | R114           | Dharanidhar Marg | 560.00             |            | 560.00 | 560.00         | 560.00 | 560.00  |     | 560.00  |       |



| SN | Road Number | Name of Road                | Length in m        |            |          | Work Completed |          |          |     |          | Remarks |
|----|-------------|-----------------------------|--------------------|------------|----------|----------------|----------|----------|-----|----------|---------|
|    |             |                             | Progress           |            | Total    | Sub-base       | Base     | Asphalt  | RCC | Paint    |         |
|    |             |                             | Previous (Revised) | This Month |          | m              | m        | m        | m   | m        |         |
| 48 | R113        | Kavi Lekh Marg              | 740.00             |            | 740.00   | 740.00         | 740.00   | 740.00   |     |          |         |
| 49 | R5a         |                             | 54.70              |            | 54.70    | 54.70          | 54.70    | 54.70    |     |          |         |
| 50 | Rani site B |                             | 520.00             |            | 520.00   | 520.00         | 520.00   | 520.00   |     |          |         |
| 51 | R3          | Dharamban Marg              | 2,233.00           |            | 2,233.00 | 2,233.00       | 2,150.30 | 2,150.30 |     | 2,080.30 |         |
|    | R3          | Tinpaini to Puspallal chowk |                    |            |          |                |          |          |     | 4,000.00 |         |
| 52 | R78         | Sombare - Highway           | 92.00              |            | 92.00    | 92.00          | 92.00    | 92.00    |     |          |         |
| 53 | R84         | West of school              | 473.20             |            | 473.20   | 473.20         | 236.00   | 236.00   |     |          |         |
| 54 | R85         | Machha Line                 | 160.00             |            | 160.00   | 160.00         | 160.00   | 160.00   |     |          |         |
| 55 | R87         | Mahabir Chowk               | 148.00             |            | 148.00   | 148.00         | 110.00   | 110.00   |     |          |         |
| 56 | R86         | Petrol pump side -R12       | 200.00             |            | 200.00   | 200.00         | 120.00   | 120.00   |     |          |         |





| SN | Road Number | Name of Road | Length in m        |            |        | Work Completed |        |         |     |        | Remarks |
|----|-------------|--------------|--------------------|------------|--------|----------------|--------|---------|-----|--------|---------|
|    |             |              | Progress           |            | Total  | Sub-base       | Base   | Asphalt | RCC | Paint  |         |
|    |             |              | Previous (Revised) | This Month |        | m              | m      | m       | m   | m      |         |
| 57 | R11         | R18/R86      | 281.00             |            | 281.00 | 281.00         | 205.00 | 205.00  |     |        |         |
| 58 | N3          | Jatuwa       | 117.00             |            | 117.00 | 117.00         | 117.00 | 117.00  |     |        |         |
| 59 | N4          | Jatuwa       | 168.00             |            | 168.00 | 168.00         | 168.00 | 168.00  |     |        |         |
| 60 | R10         | Ram Marga    | 292.00             |            | 292.00 | 292.00         | 292.00 | 292.00  |     | 853.20 |         |
| 61 | T2L26F      | APF          | 55.00              |            | 55.00  | 55.00          |        |         |     |        |         |
| 62 | T2L27       |              | 80.00              |            | 80.00  | 80.00          | 80.00  | 80.00   |     |        |         |
| 63 | R122        |              | 265.55             |            | 265.55 | 265.55         | 265.55 | 265.55  |     | 497.40 |         |
| 64 | N9          |              | 220.42             |            | 220.42 | 220.42         | 220.42 | 220.42  |     |        |         |
| 65 | R17         |              | 365.00             |            | 365.00 | 365.00         | 365.00 | 365.00  |     | 730.00 |         |
| 66 | R18         |              | 370.00             |            | 370.00 | 370.00         | 370.00 | 180.00  |     |        |         |



| SN | Road Number | Name of Road              | Length in m        |            |        | Work Completed |        |         |     | Paint  | Remarks |
|----|-------------|---------------------------|--------------------|------------|--------|----------------|--------|---------|-----|--------|---------|
|    |             |                           | Progress           |            | Total  | Sub-base       | Base   | Asphalt | RCC |        |         |
|    |             |                           | Previous (Revised) | This Month |        | m              | m      | m       | m   | m      |         |
| 67 | N2          |                           | 75.84              |            | 75.84  | 75.84          |        |         |     |        |         |
| 68 | T3L6        | Moti marga                | 170.00             |            | 170.00 | 170.00         | 170.00 | 170.00  |     |        |         |
| 69 | T3L6        | Elite club - CDO Office   | 107.00             |            | 107.00 | 107.00         |        |         |     |        |         |
| 70 | T3L6        | Balmandir - Ganesh Mandir | 380.00             |            | 380.00 | 380.00         |        |         |     |        |         |
| 71 | T3L6        | CDO Office front          | 49.40              |            | 49.40  | 49.40          |        |         |     |        |         |
| 72 | T3L6A       | Golchha Marga             | 220.00             |            | 220.00 | 220.00         | 220.00 | 220.00  |     |        |         |
| 73 | T3L23       | Madhumara road            | 541.00             |            | 541.00 | 541.00         | 541.00 | 541.00  |     | 358.40 |         |
| 74 | R45         | Bata road                 | 505.00             |            | 505.00 | 505.00         | 295.00 | 295.00  |     |        |         |
| 75 | T3L21       |                           | 400.00             |            | 400.00 | 400.00         | 400.00 | 400.00  |     | 774.00 |         |
| 76 | N5          |                           | 70.00              |            | 70.00  | 70.00          | 70.00  | 70.00   |     | 122.00 |         |



| SN | Road Number  | Name of Road | Length in m        |            |          | Work Completed |          |          |     | Paint  | Remarks |
|----|--------------|--------------|--------------------|------------|----------|----------------|----------|----------|-----|--------|---------|
|    |              |              | Progress           |            | Total    | Sub-base       | Base     | Asphalt  | RCC |        |         |
|    |              |              | Previous (Revised) | This Month |          | m              | m        | m        | m   | m      |         |
| 77 | T3L39        |              | 400.00             |            | 400.00   | 400.00         | 245.80   | 245.80   |     | 491.00 |         |
| 78 | T3L39A       |              | 130.00             |            | 130.00   | 130.00         | 130.00   | 130.00   |     | 179.40 |         |
| 79 | T3L39B       |              | 80.00              |            | 80.00    | 80.00          | 80.00    | 80.00    |     | 117.60 |         |
| 80 | R68 - T2L24G |              | 220.00             |            | 220.00   | 220.00         |          |          |     |        |         |
| 81 | N10          |              | 194.00             |            | 194.00   | 194.00         |          |          |     |        |         |
| 82 | T3L24C       |              | 170.00             |            | 170.00   | 170.00         |          |          |     |        |         |
| 83 | T3L9         |              | 278.00             |            | 278.00   | 278.00         |          |          |     |        |         |
| 84 | R6           |              | 1,228.20           |            | 1,228.20 | 1,228.20       | 1,228.20 | 1,228.20 |     |        |         |
| 85 | N24          |              | 136.00             |            | 136.00   | 136.00         | 136.00   | 136.00   |     |        |         |
| 86 | R31          |              | 188.70             |            | 188.70   | 188.70         | 188.70   | 188.70   |     |        |         |



| SN | Road Number               | Name of Road         | Length in m        |            |        | Work Completed |        |         |     | Remarks |
|----|---------------------------|----------------------|--------------------|------------|--------|----------------|--------|---------|-----|---------|
|    |                           |                      | Progress           |            | Total  | Sub-base       | Base   | Asphalt | RCC | Paint   |
|    |                           |                      | Previous (Revised) | This Month |        | m              | m      | m       | m   | m       |
| 87 | Bindabasini Marga         |                      | 352.28             |            | 352.28 | 352.28         | 352.28 | 352.80  |     |         |
| 88 | Bhattimode to Hartalihaat |                      | 166.50             |            | 166.50 | 166.50         | 166.50 | 166.50  |     |         |
| 89 | R73                       |                      | 217.00             |            | 217.00 | 217.00         | 217.00 | 217.00  |     |         |
| 90 | R6                        | Bata Galli           | 269.00             |            | 269.00 | 269.00         | 269.00 | 269.00  |     |         |
|    | R6                        |                      | 280.00             |            | 280.00 | 280.00         | 280.00 | 194.80  |     |         |
|    | R6                        | Pratibha chowk to N2 | 510.80             |            | 510.80 | 510.80         | 510.80 | 510.80  |     |         |
| 91 | R9 (R41-R7)               |                      | 194.80             |            | 194.80 | 194.80         | 194.80 | 194.80  |     |         |
| 92 | R44                       | Thakurbari Road      | 357.50             |            | 357.50 | 357.50         |        |         |     |         |
| 93 | R102                      | Main                 | 140.00             |            | 140.00 | 140.00         | 140.00 |         |     |         |



| SN  | Road Number | Name of Road   | Length in m        |            |        | Work Completed |        |         |     | Remarks |       |
|-----|-------------|----------------|--------------------|------------|--------|----------------|--------|---------|-----|---------|-------|
|     |             |                | Progress           |            | Total  | Sub-base       | Base   | Asphalt | RCC |         | Paint |
|     |             |                | Previous (Revised) | This Month |        | m              | m      | m       | m   |         | m     |
| 94  | R102        | Branch         | 71.30              |            | 71.30  | 71.30          |        |         |     |         |       |
| 95  | R103        |                | 170.40             |            | 170.40 | 170.40         |        |         |     |         |       |
| 96  | R32         |                | 188.00             |            | 188.00 | 188.00         | 188.00 | 188.00  |     |         |       |
| 97  | T2L18Y      |                | 116.20             |            | 116.20 | 116.20         | 116.20 |         |     |         |       |
| 98  | R20         |                | 108.00             |            | 108.00 | 108.00         | 108.00 |         |     |         |       |
| 99  | R82         | Everest School | 530.00             |            | 530.00 | 530.00         | 530.00 | 530.00  |     |         |       |
| 100 | T1L5        |                | 140.00             |            | 140.00 | 140.00         | 140.00 | 140.00  |     |         |       |
|     | T1L5A       |                | 533.50             |            | 533.50 | 533.50         | 533.50 | 275.00  |     |         |       |
| 101 | T3L23C      | Jay Nepal      | 220.20             |            | 220.20 | 220.20         | 155.00 | 65.20   |     |         |       |
| 102 | T3L25B      |                | 195.00             |            | 195.00 | 195.00         |        |         |     |         |       |



| SN  | Road Number     | Name of Road | Length in m        |            |        | Work Completed |        |         |     |       | Remarks |
|-----|-----------------|--------------|--------------------|------------|--------|----------------|--------|---------|-----|-------|---------|
|     |                 |              | Progress           |            | Total  | Sub-base       | Base   | Asphalt | RCC | Paint |         |
|     |                 |              | Previous (Revised) | This Month |        | m              | m      | m       | m   | m     |         |
| 103 | T3L25C          |              | 140.00             |            | 140.00 | 140.00         |        |         |     |       |         |
| 104 | R3              | T3 Trunk     | 465.00             |            | 465.00 | 465.00         | 370.00 |         |     |       |         |
| 105 | Nagmandir to R3 |              | 55.00              |            | 55.00  | 55.00          | 55.00  | 55.00   |     |       |         |
| 106 | R75             |              | 130.00             |            | 130.00 | 130.00         | 130.00 | 130.00  |     |       |         |
| 107 | R43             |              | 250.00             |            | 250.00 | 250.00         |        |         |     |       |         |
| 108 | T219P           |              | 124.80             |            | 124.80 | 124.80         | 124.80 | 124.80  |     |       |         |
| 109 | T219Q           |              | 113.70             |            | 113.70 | 113.70         | 113.70 | 113.70  |     |       |         |
| 110 | R106            |              | 130.00             |            | 130.00 | 120.90         | 120.90 |         |     |       |         |
| 111 | T3L12           |              | 80.00              |            | 80.00  | 80.00          | 80.00  |         |     |       |         |
| 112 | R46             |              | 340.00             |            | 340.00 | 200.00         |        |         |     |       |         |



| SN  | Road Number | Name of Road | Length in m        |            |        | Work Completed |        |         |     |       | Remarks |
|-----|-------------|--------------|--------------------|------------|--------|----------------|--------|---------|-----|-------|---------|
|     |             |              | Progress           |            | Total  | Sub-base       | Base   | Asphalt | RCC | Paint |         |
|     |             |              | Previous (Revised) | This Month |        | m              | m      | m       | m   | m     |         |
| 113 | T3L11E      |              | 180.00             |            | 180.00 |                |        |         |     |       |         |
| 114 | T3L13D      |              | 70.00              |            | 70.00  | 70.00          |        |         |     |       |         |
| 115 | R34         |              | 157.00             |            | 157.00 | 157.00         | 157.00 |         |     |       |         |
| 116 | T3L13E      |              | 80.00              |            | 80.00  | 80.00          | 65.00  | 65.00   |     |       |         |
| 117 | T3L13K      |              | 154.00             |            | 154.00 | 154.00         | 154.00 | 74.00   |     |       |         |
| 118 | R19         |              | 220.00             |            | 220.00 | 220.00         | 220.00 |         |     |       |         |
| 119 | R41         |              | 540.00             |            | 540.00 | 540.00         | 420.00 | 400.00  |     |       |         |
| 120 | R9B         |              | 90.00              |            | 90.00  | 90.00          | 90.00  | 83.85   |     |       |         |
| 121 | R67         |              | 119.40             |            | 119.40 | 119.40         | 119.40 |         |     |       |         |
| 122 | R9A         |              | 109.00             |            | 109.00 | 109.00         | 109.00 | 109.00  |     |       |         |





| SN  | Road Number | Name of Road | Length in m        |            |           | Work Completed |           |           |        |           | Remarks |
|-----|-------------|--------------|--------------------|------------|-----------|----------------|-----------|-----------|--------|-----------|---------|
|     |             |              | Progress           |            | Total     | Sub-base       | Base      | Asphalt   | RCC    | Paint     |         |
|     |             |              | Previous (Revised) | This Month |           | m              | m         | m         | m      | m         |         |
| 123 | T3L7A       |              | 190.00             |            | 190.00    | 190.00         | 190.00    | 158.00    |        |           |         |
|     | Total       |              | 46,989.11          | -          | 50,971.31 | 50,642.21      | 43,917.42 | 39,784.40 | 210.00 | 18,395.30 |         |



**Table No:-4.1 Footpath (Work Progress till date)**

| SN | Road Number | Type*         | Progress in m      |            |            | Footpath   |                  |                            | Remarks |
|----|-------------|---------------|--------------------|------------|------------|------------|------------------|----------------------------|---------|
|    |             |               | Previous (Revised) | This Month | Cumulative | Length (m) | Avg. Breadth (m) | Quantity (m <sup>2</sup> ) |         |
| 1  | R2          | Precast block | 602.00             |            | 602.00     | 602.00     | 1.10             | 662.20                     | RHS     |
| 2  | R2          | Precast block | 602.00             |            | 602.00     | 602.00     | 1.10             | 662.20                     | LHS     |
| 3  | R29         | Precast block | 320.00             | 10.00      | 330.00     | 330.00     | 0.90             | 297.00                     | RHS     |
| 4  | R29         | Precast block | 322.00             | 8.00       | 330.00     | 330.00     | 0.90             | 297.00                     | LHS     |
| 5  | R28         | Precast block | 322.00             |            | 322.00     | 322.00     | 0.90             | 289.80                     | RHS     |
| 6  | R28         | Precast block | 322.00             | 13.00      | 335.00     | 335.00     | 0.90             | 301.50                     | LHS     |
| 7  | R28         | Precast block | 322.00             | 19.00      | 341.00     | 341.00     | 0.90             | 306.90                     | RHS     |
| 8  | R21         | Precast block | 365.00             | -          | 365.00     | 365.00     | 1.00             | 365.00                     | RHS     |
| 9  | R21         | Precast block | 765.00             | -          | 765.00     | 765.00     | 1.00             | 765.00                     | LHS     |
| 10 | R78         | Precast block | 75.00              |            | 75.00      | 75.00      | 1.20             | 90.00                      | RHS     |
| 11 | R78         | Precast block | 75.00              |            | 75.00      | 75.00      | 1.20             | 90.00                      | LHS     |
| 12 | R77         | Precast block | 115.00             |            | 115.00     | 115.00     | 0.90             | 103.50                     | RHS     |
| 13 | R77         | Precast block | 115.00             |            | 115.00     | 115.00     | 0.90             | 103.50                     | LHS     |
| 14 | R76         | Precast block | 275.00             |            | 275.00     | 275.00     | 0.95             | 261.25                     | RHS     |
| 15 | R76         | Precast block | 275.00             |            | 275.00     | 275.00     | 0.95             | 261.25                     | LHS     |
| 16 | R75         | Precast block | 160.00             |            | 160.00     | 160.00     | 0.95             | 152.00                     | RHS     |
| 17 | R75         | Precast block | 160.00             |            | 160.00     | 160.00     | 0.95             | 152.00                     | LHS     |



| SN | Road Number | Type*         | Progress in m      |            |            | Footpath   |                  |                            | Remarks |
|----|-------------|---------------|--------------------|------------|------------|------------|------------------|----------------------------|---------|
|    |             |               | Previous (Revised) | This Month | Cumulative | Length (m) | Avg. Breadth (m) | Quantity (m <sup>2</sup> ) |         |
| 18 | R10         | Precast block | 630.00             | 70.00      | 700.00     | 700.00     | 0.95             | 665.00                     | RHS     |
| 19 | R10         | Precast block | 630.00             | 70.00      | 700.00     | 700.00     | 0.95             | 665.00                     | LHS     |
| 20 | R31         | Precast block | 175.00             |            | 175.00     | 175.00     | 0.95             | 166.25                     | RHS     |
| 21 | R31         | Precast block | 175.00             |            | 175.00     | 175.00     | 0.95             | 166.25                     | LHS     |
| 22 | R32         | Precast block | 100.00             | 85.00      | 185.00     | 185.00     | 0.30             | 55.50                      | RHS     |
| 23 | R32         | Precast block | 100.00             | 85.00      | 185.00     | 185.00     | 0.30             | 55.50                      | LHS     |
| 24 | R33         | Precast block | 285.00             |            | 285.00     | 285.00     | 0.90             | 256.50                     | RHS     |
| 25 | R33         | Precast block | 170.00             |            | 170.00     | 170.00     | 0.90             | 153.00                     | LHS     |
| 26 | R16         | Precast block | 170.00             |            | 170.00     | 170.00     | 1.20             | 204.00                     | RHS     |
| 27 | R16         | Precast block | 170.00             |            | 170.00     | 170.00     | 1.20             | 204.00                     | LHS     |
| 28 | R6          | Precast block | 700.00             |            | 700.00     | 700.00     | 1.20             | 840.00                     | RHS     |
| 29 | R6          | Precast block | 700.00             |            | 700.00     | 700.00     | 1.20             | 840.00                     | LHS     |
| 30 | B1          | Precast block | 490.00             |            | 490.00     | 490.00     | 1.20             | 588.00                     | RHS     |
| 31 | B1          | Precast block | 490.00             |            | 490.00     | 490.00     | 3.40             | 1,666.00                   | LHS     |
| 32 | B2 (2)      | Precast block | 715.00             |            | 715.00     | 715.00     | 0.59             | 421.85                     | RHS     |
| 33 | B2 (2)      | Precast block | 715.00             |            | 715.00     | 715.00     | 1.65             | 1,179.75                   | LHS     |
| 34 | B2 (1)      | Precast block | 131.00             |            | 131.00     | 131.00     | 2.60             | 340.60                     | RHS     |
| 35 | B2 (1)      | Precast block | 131.00             |            | 131.00     | 131.00     | 0.90             | 117.90                     | LHS     |



| SN | Road Number | Type*         | Progress in m      |            |            | Footpath   |                  |                            | Remarks |
|----|-------------|---------------|--------------------|------------|------------|------------|------------------|----------------------------|---------|
|    |             |               | Previous (Revised) | This Month | Cumulative | Length (m) | Avg. Breadth (m) | Quantity (m <sup>2</sup> ) |         |
| 36 | B3          | Precast block | 1,300.00           | (630.00)   | 670.00     | 670.00     | 0.70             | 469.00                     | RHS     |
| 37 | B3          | Precast block | 2,201.00           | (1,531.00) | 670.00     | 670.00     | 0.70             | 469.00                     | LHS     |
| 38 | S11         | Precast block | 112.00             |            | 112.00     | 112.00     | 0.95             | 106.40                     | RHS     |
| 39 | S11         | Precast block | 75.00              |            | 75.00      | 75.00      | 1.21             | 90.75                      | LHS     |
| 40 | Rani        | Precast block | 425.00             |            | 425.00     | 425.00     | 1.00             | 425.00                     | RHS     |
| 41 | Rani        | Precast block | 425.00             |            | 425.00     | 425.00     | 1.00             | 425.00                     | LHS     |
| 42 | R3          | Precast block |                    | 250.00     | 250.00     | 250.00     | 1.10             | 275.00                     | RHS     |
| 43 | R3          | Precast block |                    | 1,050.00   | 1,050.00   | 1,050.00   | 1.10             | 1,155.00                   | LHS     |
| 44 | R27         | Precast block |                    | 400.00     | 400.00     | 400.00     | 1.10             | 440.00                     | RHS     |
| 45 | R27         | Precast block |                    | 400.00     | 400.00     | 400.00     | 0.85             | 340.00                     | LHS     |
| 46 | R26         | Precast block |                    | 300.00     | 300.00     | 300.00     | 1.23             | 369.00                     | RHS     |
| 47 | R26         | Precast block |                    | 285.00     | 285.00     | 285.00     | 1.10             | 313.50                     | LHS     |
| 48 | R25         | Precast block |                    | 205.00     | 205.00     | 205.00     | 1.00             | 205.00                     | RHS     |
| 49 | R25         | Precast block |                    | 201.00     | 201.00     | 201.00     | 1.00             | 201.00                     | LHS     |



**Table No:-4.2 Road improvement Works (Work Progress till date)**

| <b>SN</b> | <b>Description</b> | <b>Unit</b> | <b>Proposed</b> | <b>Total Up to Previous Month</b> | <b>This Month</b> | <b>Total Up to this Month</b> | <b>Progress</b> |
|-----------|--------------------|-------------|-----------------|-----------------------------------|-------------------|-------------------------------|-----------------|
| 1         | Subgrade           | m           | 73,860.00       | 46,989.11                         | 3,982.20          | <b>50,971.31</b>              | <b>69.01%</b>   |
| 2         | Sub Base           | m           | 73,860.00       | 46,989.11                         | 3,653.10          | <b>50,642.21</b>              | <b>68.57%</b>   |
| 3         | Base               | m           | 73,860.00       | 39,579.32                         | 4,338.10          | <b>43,917.42</b>              | <b>59.46%</b>   |
| 4         | Prime/Tack         | m           | 73,860.00       | 36,192.04                         | 3,592.36          | <b>39,784.40</b>              | <b>53.86%</b>   |
| 5         | Asphalt            | m           | 73,860.00       | 36,192.04                         | 3,592.36          | <b>39,784.40</b>              | <b>53.86%</b>   |
| 6         | Paint              | m           | 73,860.00       | 14,395.30                         | 4,000.00          | <b>18,395.30</b>              | <b>24.91%</b>   |

### 3.1.4. ROAD SIDE DRAIN

Most of the roads under this project for upgrading is without drain or existing drain are in poor condition, on instruction from the employer at various stretches the construction works were ongoing and some of them have been completed. The project has provisioned drain at both sides or one side as per available RoW of the road. The contractor has already started drain works at many locations. The progress for the drain works is listed below:

**Table No:-4a PROPOSED and PHYSICAL PROGRESS of Road side drain works till date.**

| SN | Road Number | Name of Road             | Length in (m)      |            |        | Work Completed |     | Remarks |
|----|-------------|--------------------------|--------------------|------------|--------|----------------|-----|---------|
|    |             |                          | Progress           |            | Total  | Brick          | RCC |         |
|    |             |                          | Previous (Revised) | This Month |        | m              | m   |         |
| 1  | B1          | Kanchan Marg             | 90.00              |            | 90.00  | 90.00          |     |         |
| 2  | R29         | Shanti Marg              | 256.52             |            | 256.52 | 256.52         |     |         |
| 3  | N36         |                          | 185.88             |            | 185.88 | 185.88         |     |         |
| 4  | R8          |                          | 219.83             |            | 219.83 | 219.83         |     |         |
| 5  | R7          | Devi Marg and Pipal Marg | 89.58              | 60.00      | 149.58 | 149.58         |     |         |
| 6  | R63         | DSP Road                 | 418.79             |            | 418.79 | 418.79         |     |         |
| 7  | R9          | Baglamukhi path          | 103.20             |            | 103.20 | 103.20         |     |         |
| 8  | S13         | Udaya Marga              | 158.10             |            | 158.10 | 158.10         |     |         |
| 9  | N33         |                          | 70.00              |            | 70.00  | 70.00          |     |         |
| 10 | R28         | Pustakalaya Marg         | 278.00             |            | 278.00 | 278.00         |     |         |
| 11 | R90         | Shakti Marg              | 313.25             |            | 313.25 | 313.25         |     |         |
| 12 | R114        | Dharanidhar Marg         | 312.33             |            | 312.33 | 312.33         |     |         |



| SN | Road Number | Name of Road       | Length in (m)      |            |        | Work Completed |     | Remarks |
|----|-------------|--------------------|--------------------|------------|--------|----------------|-----|---------|
|    |             |                    | Progress           |            | Total  | Brick          | RCC |         |
|    |             |                    | Previous (Revised) | This Month |        | m              | m   |         |
| 13 | R11         | Om Shiv Marg       | 225.17             |            | 225.17 | 225.17         |     |         |
| 14 | R18         |                    | 381.50             |            | 381.50 | 381.50         |     |         |
| 15 | R17         |                    | 75.00              |            | 75.00  | 75.00          |     |         |
| 16 | R113        | Kavi Lekhnath Marg | 72.45              |            | 72.45  | 72.45          |     |         |
| 17 | R77         | Arniko Marg        | 80.00              |            | 80.00  | 80.00          |     |         |
| 18 | R76         | Mitra Marg         | 270.00             |            | 270.00 | 270.00         |     |         |
| 19 | N9          | Devi Marga         | 22.70              |            | 22.70  | 22.70          |     |         |
| 20 | N4          |                    | 146.38             |            | 146.38 | 146.38         |     |         |
| 21 | R33         | Tarun Marg         | 264.48             |            | 264.48 | 264.48         |     |         |
| 22 | R36         | Gaurav Marg        | 216.45             |            | 216.45 | 216.45         |     |         |
| 23 | R86         | Janpath Marg       | 187.55             |            | 187.55 | 187.55         |     |         |
| 24 | R183        | Nava Jyoti Marg    | 211.05             |            | 211.05 | 211.05         |     |         |
| 25 | R7a         |                    | 65.00              |            | 65.00  | 65.00          |     |         |
| 26 | Rani site   | Rani B             | 530.00             |            | 530.00 | 530.00         |     |         |
| 27 | Rani site   | Rani A             | 270.00             |            | 270.00 | 270.00         |     |         |
| 28 | N3          |                    | 110.00             |            | 110.00 | 110.00         |     |         |





| SN | Road Number                      | Name of Road        | Length in (m)      |            |          | Work Completed |        | Remarks |
|----|----------------------------------|---------------------|--------------------|------------|----------|----------------|--------|---------|
|    |                                  |                     | Progress           |            | Total    | Brick          | RCC    |         |
|    |                                  |                     | Previous (Revised) | This Month |          | m              | m      |         |
| 29 | N5                               |                     | 65.00              |            | 65.00    | 65.00          |        |         |
| 30 | R21                              | Binayak Marga       | 388.25             |            | 388.25   | 388.25         |        |         |
| 31 | R2                               | Main Road           | 1,992.50           | 100.00     | 2,092.50 | 2,092.50       |        |         |
| 32 | T1L16B                           | Xenial Front        | 205.68             |            | 205.68   | 205.68         |        |         |
| 33 | T1L16A                           | Xenial South        | 150.20             |            | 150.20   | 150.20         |        |         |
| 34 | R75                              | Tintoliya Marga     | 127.50             |            | 127.50   | 127.50         |        |         |
| 35 | R122                             | Amar Marga          | 250.48             |            | 250.48   | 250.48         |        |         |
| 36 | R18 Branch                       |                     | 30.00              |            | 30.00    | 30.00          |        |         |
| 37 | R7(b) (Neuro to sidhartha chowk) | Siddhartha Marga    | 330.00             |            | 330.00   | 330.00         |        |         |
| 38 | R12                              | Sukra Path          | 290.00             |            | 290.00   | 290.00         |        |         |
| 39 | R42                              | Jahada Marga        | 171.00             |            | 171.00   | 171.00         |        |         |
| 40 | R6                               | Shahi Marg          | 760.00             |            | 760.00   | -              | 760.00 |         |
| 41 | R21(a)                           | DharamBadh Junction | 80.00              |            | 80.00    | 80.00          |        |         |
| 42 | R78                              | Binayak Marga       | 70.00              |            | 70.00    | 70.00          |        |         |
| 43 | R188                             | Shakti Marg         | 115.60             |            | 115.60   | 115.60         |        |         |
| 44 | R40                              | Brahma Kumari Marga | 350.00             |            | 350.00   | 350.00         |        |         |



| SN | Road Number     | Name of Road             | Length in (m)      |            |        | Work Completed |     | Remarks |
|----|-----------------|--------------------------|--------------------|------------|--------|----------------|-----|---------|
|    |                 |                          | Progress           |            | Total  | Brick          | RCC |         |
|    |                 |                          | Previous (Revised) | This Month |        | m              | m   |         |
| 45 | Rani Site C     |                          | 97.50              |            | 97.50  | 97.50          |     |         |
| 46 | Ranit Site D    |                          | 131.45             |            | 131.45 | 131.45         |     |         |
| 47 | T3L21           | Moti Marga               | 385.95             |            | 385.95 | 385.95         |     |         |
| 48 | T3L39           | Gaheli Marga             | 340.00             |            | 340.00 | 340.00         |     |         |
| 49 | T3 Line 39A     |                          | 90.00              |            | 90.00  | 90.00          |     |         |
| 50 | T3 L39B         |                          | 90.00              |            | 90.00  | 90.00          |     |         |
| 51 | T2L27           | Bhumi Prashasan Junction | 79.50              |            | 79.50  | 79.50          |     |         |
| 52 | T4 Line 1       | Sailesh Marg             | 100.00             |            | 100.00 | 100.00         |     |         |
| 53 | N2              |                          | 95.00              |            | 95.00  | 95.00          |     |         |
| 54 | T2 Line 26E     | College Road             | 90.00              |            | 90.00  | 90.00          |     |         |
| 55 | T2 Line 18C     | Maisthan Marga           | 102.00             |            | 102.00 | 102.00         |     |         |
| 56 | T2Line 18A      | Makalu Marga             | 60.00              |            | 60.00  | 60.00          |     |         |
| 57 | R6 (T3L11i)     |                          | 247.50             |            | 247.50 | 247.50         |     |         |
| 58 | R9 (T3L11k)     | Tathasthu Marga          | 180.00             |            | 180.00 | 180.00         |     |         |
| 59 | R45 (T3Line10D) | Dadhiram Marga           | 260.00             |            | 260.00 | 260.00         |     |         |
| 60 | R9, T2 L19      | Fanindra Marga           | 380.00             |            | 380.00 | 380.00         |     |         |



| SN | Road Number                 | Name of Road          | Length in (m)      |            |        | Work Completed |     | Remarks |
|----|-----------------------------|-----------------------|--------------------|------------|--------|----------------|-----|---------|
|    |                             |                       | Progress           |            | Total  | Brick          | RCC |         |
|    |                             |                       | Previous (Revised) | This Month |        | m              | m   |         |
| 61 | R7c (Neuro to Shanti Chowk) | Siddhartha Marga      | 305.00             |            | 305.00 | 305.00         |     |         |
| 62 | R84                         | School Marga          | 663.00             |            | 663.00 | 663.00         |     |         |
| 63 | R85                         | Lekhanath Marga       | 150.00             |            | 150.00 | 150.00         |     |         |
| 64 | R87                         | Byas Marga            | 150.00             |            | 150.00 | 150.00         |     |         |
| 65 | Rani B (Bus park)           |                       | 90.00              |            | 90.00  | 90.00          |     |         |
| 66 | R8(a)                       | Madhumara Marg        | 285.00             |            | 285.00 | 285.00         |     |         |
| 67 | T3L23A                      |                       | 100.00             | 180.00     | 280.00 | 280.00         |     |         |
| 68 | Rani E                      |                       | 85.00              |            | 85.00  | 85.00          |     |         |
| 69 | R102                        | Hamro Marg            | 132.50             |            | 132.50 | 132.50         |     |         |
| 70 | R10/R10a                    | Ram Marga             | 740.36             | 200.00     | 940.36 | 940.36         |     |         |
| 71 | N10                         | APF                   | 150.00             |            | 150.00 | 150.00         |     |         |
| 72 | R23                         | Bani Marg             | 200.00             |            | 200.00 | 200.00         |     |         |
| 73 | R103                        | Vibuti Marga          | 162.50             |            | 162.50 | 162.50         |     |         |
| 74 | T3L6                        | Sahid Marga           | 350.00             |            | 350.00 | 350.00         |     |         |
| 75 | P1, T3L6A                   | Pandit Meghnath Marga | 260.00             |            | 260.00 | 260.00         |     |         |
| 76 | T2 L24C & D                 | Hanuman Das Marga     | 130.00             |            | 130.00 | 130.00         |     |         |



| SN | Road Number | Name of Road         | Length in (m)      |            |        | Work Completed |     | Remarks |
|----|-------------|----------------------|--------------------|------------|--------|----------------|-----|---------|
|    |             |                      | Progress           |            | Total  | Brick          | RCC |         |
|    |             |                      | Previous (Revised) | This Month |        | m              | m   |         |
| 77 | R99         | APF                  | 187.00             |            | 187.00 | 187.00         |     |         |
| 78 | T2 L25      |                      | 150.00             | 150.00     | 300.00 | 300.00         |     |         |
| 79 | R20         |                      | 60.00              |            | 60.00  | 60.00          |     |         |
| 80 | T2L24F      |                      | 60.00              |            | 60.00  | 60.00          |     |         |
| 81 | R105        |                      | 150.00             |            | 150.00 | 150.00         |     |         |
| 82 | R34         | Prabhu Marg          | 158.35             |            | 158.35 | 158.35         |     |         |
| 83 | R35         | Garima Marg          | 138.00             |            | 138.00 | 138.00         |     |         |
| 84 | R107        |                      | 160.00             |            | 160.00 | 160.00         |     |         |
| 85 | T3L13D      |                      | 70.63              |            | 70.63  | 70.63          |     |         |
| 86 | T3L13E      |                      | 62.40              |            | 62.40  | 62.40          |     |         |
| 87 | T3L11E      |                      | 110.00             |            | 110.00 | 110.00         |     |         |
| 88 | B2          |                      | 76.50              |            | 76.50  | 76.50          |     |         |
| 89 | R78         |                      | 35.00              |            | 35.00  | 35.00          |     |         |
| 90 | R7b         | in between R26 & R27 | 288.50             |            | 288.50 | 288.50         |     |         |
| 91 | T3L21A      |                      | 25.00              |            | 25.00  | 25.00          |     |         |
| 92 | R74         |                      | 96.00              |            | 96.00  | 96.00          |     |         |



| SN  | Road Number | Name of Road | Length in (m)      |            |        | Work Completed |     | Remarks |
|-----|-------------|--------------|--------------------|------------|--------|----------------|-----|---------|
|     |             |              | Progress           |            | Total  | Brick          | RCC |         |
|     |             |              | Previous (Revised) | This Month |        | m              | m   |         |
| 93  | R46         |              | 120.00             |            | 120.00 | 120.00         |     |         |
| 94  | R101        |              | 160.00             |            | 160.00 | 160.00         |     |         |
| 95  | T3L7A       |              | 125.00             |            | 125.00 | 125.00         |     |         |
| 96  | T3L8        |              | 75.00              |            | 75.00  | 75.00          |     |         |
| 97  | R20         |              | 100.00             |            | 100.00 | 100.00         |     |         |
| 98  | R5          |              | 200.00             |            | 200.00 | 200.00         |     |         |
| 99  | R67         |              | 110.00             |            | 110.00 | 110.00         |     |         |
| 100 | R82         |              | 350.00             |            | 350.00 | 350.00         |     |         |
| 101 | T1L13A      |              | 100.00             |            | 100.00 | 100.00         |     |         |
| 102 | T1L14A      |              | 150.00             |            | 150.00 | 150.00         |     |         |
| 103 | R68         |              | 200.00             |            | 200.00 | 200.00         |     |         |
| 104 | T3L22A      |              | 335.00             |            | 335.00 | 335.00         |     |         |
| 105 | T3L22B      |              | 120.00             |            | 120.00 | 120.00         |     |         |
| 106 | T3L25C      |              | 130.00             |            | 130.00 | 130.00         |     |         |
| 107 | T3L11B      |              | 60.00              |            | 60.00  | 60.00          |     |         |
| 108 | T3L11M      |              | 50.00              |            | 50.00  | 50.00          |     |         |



| SN  | Road Number | Name of Road  | Length in (m)      |            |        | Work Completed |     | Remarks |
|-----|-------------|---------------|--------------------|------------|--------|----------------|-----|---------|
|     |             |               | Progress           |            | Total  | Brick          | RCC |         |
|     |             |               | Previous (Revised) | This Month |        | m              | m   |         |
| 109 | R106        |               | 70.00              |            | 70.00  | 70.00          |     |         |
| 110 | R41         |               | 520.00             |            | 520.00 | 520.00         |     |         |
| 111 | T2L19B      |               | 110.00             |            | 110.00 | 110.00         |     |         |
| 112 | R30         |               | 180.00             |            | 180.00 | 180.00         |     |         |
| 113 | T3L13C      |               | 225.00             |            | 225.00 | 225.00         |     |         |
| 114 | T3L13J      |               | 72.53              |            | 72.53  | 72.53          |     |         |
| 115 | T2L18Y      |               | 100.00             |            | 100.00 | 100.00         |     |         |
| 116 | T2L19P      |               | 114.38             |            | 114.38 | 114.38         |     |         |
| 117 | T2L19Q      |               | 126.55             |            | 126.55 | 126.55         |     |         |
| 118 | R9A         |               | 208.73             |            | 208.73 | 208.73         |     |         |
| 119 | R9B         |               | 25.00              |            | 25.00  | 25.00          |     |         |
| 120 | T3L7        | Sahid Marga   | 355.00             |            | 355.00 | 355.00         |     |         |
| 121 | T2L18K      |               | 40.00              |            | 40.00  | 40.00          |     |         |
| 122 | T3L23C      |               | 105.00             |            | 105.00 | 105.00         |     |         |
| 123 | T2L24E      | Mahabir Marga | 60.00              |            | 60.00  | 60.00          |     |         |
| 124 | R44         |               | 390.00             |            | 390.00 | 390.00         |     |         |



| SN  | Road Number        | Name of Road              | Length in (m)      |            |          | Work Completed |        | Remarks |
|-----|--------------------|---------------------------|--------------------|------------|----------|----------------|--------|---------|
|     |                    |                           | Progress           |            | Total    | Brick          | RCC    |         |
|     |                    |                           | Previous (Revised) | This Month |          | m              | m      |         |
| 125 | R110               |                           | 150.00             |            | 150.00   | 150.00         |        |         |
| 126 | Parichaya Marga    |                           | 130.00             |            | 130.00   | 130.00         |        |         |
| 127 | T3L25B             |                           | 200.00             |            | 200.00   | 200.00         |        |         |
| 128 | T1L5, 5A           |                           | 590.00             |            | 590.00   | 590.00         |        |         |
| 129 | R82                |                           | 110.00             |            | 110.00   | 110.00         |        |         |
| 130 | T2L19Y             |                           | 150.00             |            | 150.00   | 150.00         |        |         |
| 131 | T3 Trunk           | Tinpaini to Devkota Chowk | 940.00             | 200.00     | 1,140.00 | 1,140.00       |        |         |
| 132 | T2L19F             |                           | 55.00              |            | 55.00    | 55.00          |        |         |
| 133 | T2L18D             |                           | 20.00              |            | 20.00    | 20.00          |        |         |
| 134 | R19                |                           | 175.00             |            | 175.00   | 175.00         |        |         |
| 135 | R83                | Shiva Marga               | 125.00             |            | 125.00   | 125.00         |        |         |
| 136 | T310B, T3L7D (R46) | Rangeli Road              | 360.00             | 40.00      | 400.00   | 400.00         |        |         |
| 137 | T2L19G             |                           | 45.00              | 15.00      | 60.00    | 60.00          |        |         |
| 138 | R4 (T2 Trunk)      | Jatuwa Marga              | 50.00              | 80.00      | 130.00   | -              | 130.00 |         |
| 139 | T3L22              | Rangeli Road              | 70.00              |            | 70.00    | 70.00          |        |         |
| 140 | T3L25B, Outlet     | Madhumara                 | 96.00              |            | 96.00    | 96.00          |        |         |



| SN  | Road Number  | Name of Road    | Length in (m)         |                 |                  | Work Completed   |               | Remarks |
|-----|--------------|-----------------|-----------------------|-----------------|------------------|------------------|---------------|---------|
|     |              |                 | Progress              |                 | Total            | Brick            | RCC           |         |
|     |              |                 | Previous<br>(Revised) | This<br>Month   |                  | m                | m             |         |
| 141 | T3L7B        | Matrika Marga   | 75.00                 |                 | 75.00            | 75.00            |               |         |
| 142 | T3L5         | Sanihat Marga   | 100.00                | 180.00          | 280.00           | 280.00           |               |         |
| 143 | T2L19X       | Parichaya Marga | 60.00                 | 150.00          | 210.00           | 210.00           |               |         |
| 144 | T2L19H       |                 | 30.00                 | 45.00           | 75.00            | 75.00            |               |         |
| 145 | R181         |                 | 150.00                |                 | 150.00           | 150.00           |               |         |
| 146 | N38          |                 |                       | 150.00          | 150.00           | 150.00           |               |         |
|     | <b>Total</b> |                 | <b>28,277.19</b>      | <b>1,550.00</b> | <b>29,827.19</b> | <b>28,937.19</b> | <b>890.00</b> |         |





### 3.2. ENVIRONMENTAL ASPECT

The environment has been defined to mean surrounding area including human and natural resources to be affected by execution and after completion of works. The Contractor shall take all precautions for safeguarding the environment during the course of the construction of the works. He shall abide by all prevalent laws, rules and regulations governing pollution and environmental protection mitigation measure specified in the latest publication of “Environmental Management Guidelines” published by the GoN and Projects Environmental management plan.

The Contractor shall prohibit employees from unauthorized use of explosives, poaching wildlife and cutting trees. The contractor shall be responsible for the action of his employees. Environmental protection works, among others, shall also include the following.

#### 3.2.1. BORROW/ QUARRY SITES

The engineer shall have the power to disallow the method of construction and / or the use of borrow or quarry area, if in this opinion, the stability and safety of the works or any adjacent structure is endangered, or there is undue interference with the natural or artificial drainage or the method or use of area will promote undue erosion.

Since the contractor has made agreement with the owner of crusher plant for the supply of required materials from the crusher, no approval for quarry and borrow sites are required till date.

#### 3.2.2. DISPOSAL OF SPOIL AND CONSTRUCTION WASTE

Material excess of the requirements for permanent works and unsuitable materials shall be disposed off in location and in the manner as agreed with the Engineer. The location of disposal site shall be such as not to promote instability, destruction of properties and public service system. Exposed area of such disposal site shall be suitably dressed and be planted with suitable vegetation.

The contractor has already provided the safe tipping sites and the excess materials are dumped as per the approved tipped sites. Spoil and construction wastes are disposed at Madhumara site similarly excess construction materials are stocked at Madhumara site and at the open space of north side of Degree College (Rani Site).

##### **Provision for maintenance of Camps/Office/Stores/Equipment.**

This section describes about the works related to maintenance and upgrading of labor camps, contractor's employees camp, contractor's site office, contractor's equipment store yards, contractor's equipment store yards, contractor's precast production yards. The camp should have the proper roofing system. Besides that, it should be spacious, should have proper circulation of the fresh air, should be hygienic, and should have proper electric lightening system & water supply system. It should be neat and clean.

Labor camps are provided at various locations as per requirement and these sites are frequently visited and monitored. The condition is found to be satisfactory. The details of the labor camp is provided in annex.



### **3.2.3. PROVISION AND MAINTENANCE OF TOILETS**

Provision of toilets for labor and employees shall be made to avoid public nuisance as well as pollution of water courses and air. The Contractor shall construct suitable septic tanks and soak pit along with rooms for pit type latrines. Sufficient water must be provided and maintained in the toilets.

Toilets have been provided at each labor camp. The contractor has been instructed to improve the toilet conditions where required.

Toilets in all the camps are found to be in the acceptable condition.

### **3.2.4. CRUSHING PLANTS**

Crushing plants shall be located away from the population centers, water intakes, and should not disturb the sensitive echo system. Suitable dust control device should be fitted with crusher to control emission of dust from plant. The crusher plant is located at around 42 km north-east of Biratnagar at a place called Chis yang.

Since the contractor has made agreement with the owner of crusher plant for the supply of required materials from the crusher, no approval for quarry and borrow sites are required till date certainly minimize the dust pollution.

### **3.2.5. ASPHALT PLANTS AND BATCHING PLANTS**

Hot mix plant and batching plant shall be located away from the population centers. The Contractor shall take every precaution to reduce levels of noise, vibration, dust and emission from his plants. No Bituminous material shall be discharged in to drains, nearby trees vegetation; property shall be protected during spray of bitumen etc.

As the concrete quantity of the project is very minimal, there is no need of the separate batch plant for concrete mixing. However, as there are a lot of asphalt concrete works to be done in the project, a separate asphalt plant has been installed, especially for the project, at about 6 Km south of the Biratnagar DSC office at a place called Rani.

### **3.2.6. OCCUPATIONAL HEALTH AND SAFETY MEASURES**

The contractor shall provide personnel protective equipment (PPE) (Helmet, Boots, masks, gloves, jacket, protective glasses etc.) to use. Public notification, safety and warning signs and informative signboards in working sites for work safety shall be provided. The DSC engineer and DSC Environmental safeguard expert supervise and monitor the use of PPEs and other necessary safety measures regularly.

The project is the environmental improvement project and mainly constitutes sewerage and drainage improvement works in BMC besides others. As per ADB guide-lines on Environmental Assessment requirements, this project is classified as Environment Category B. According to Environmental Protection Regulation-2054BS, First Revised (2055 BS) schedule-3, IEE is required for Operations of Sewerage Schemes under Schedule 1.h.2.e (pertaining to Rule3). The final report was submitted to MoUD on 14th May, 2013 and has already been approved.

Installation of functioning sewers and functioning drainage system including roads/lanes improvement in BMC does not possess any adverse environmental impacts to its surrounding. In fact, these will greatly enhance the living conditions/hygiene of the in habitants and facilitate transportation. Nevertheless, it is imperative to look into positive as well as negative impacts of such infrastructure development works in the urban area.



Training and awareness program regarding health, safety and disease at Labour camps and yards on 3 and 4 March 2018 by Safety Prevention Officer Er. Dhiraj Sardar.

A regular monitoring visit by DSC was carried out and a standard site specific environmental monitoring checklist was used to record the present status of the project to verify if work has been done as per EMP Guidelines. A sample of environmental checklist is attached herewith as Annex.

### **3.3. SOCIAL ASPECT**

Regional Urban development Project (RUDP) in Biratnagar has implemented to improve the quality of life and help to achieve higher and more socially inclusive economic growth of people through effective, efficient, and reliable delivery of improved and affordable municipal services. Infrastructure development of drainage and sewerage system as well as roads and lane improvement are the major components of RUDP in Biratnagar Metropolitan City (BMC). Establishment and functioning of Social Safeguard Desk in PIU is a major milestone of social development aspect which has been effective to address all social/community development issues and concerns with active initiation of the DSC. Local labors have been deployed in civil construction works (i.e. in Road side drain / Sub grading works). The Engineer has issued the format of Social Safeguard Monitoring plan which is attached here with.

### **3.4. SAFEGUARD/ GESI COMPONENT**

#### **3.4.1. COMMUNITY AWARENESS:**

Conduct regular Community Awareness Consultations within Project Areas to build awareness on Project Objectives, Activities and implementation during site observation, Monitoring and Meetings. Different site visit has been conducted during May, 2018 such as DDC Pre cast yard, Chyangbari Naala Biratnagar-16, Asphalt work at Sai Marg, Sewer Line construction work at Hanumandas Road and Asphalt Plant at Rani Site. Except of Minor, no any major conflict has been found during construction work. The visit was conducted jointly with Environment Safeguard Expert and Social Safeguard Expert. Before commissioning of any works at any stretches, we paste the information templates at certain interval and provide sufficient information to the users regarding it.

#### **3.4.2. GRIEVANCE REDRESSES MECHANISM:**

Although many grievances were received verbally, only 9 (Nine) grievances have been registered formally which have immediately been addressed and resolved. This month, some grievances for some stretches were received verbally and were addressed immediately. Refer semi - annual report for details.

#### **3.4.3. GENDER EQUITY AND SOCIAL INCLUSION (GESI):**

Activities related to GESI has been monitored and supervised in all Construction sites. During site visit female workers were found in significant minority (7 numbers) at Construction sites, thus Contractor was instructed as follow:

- i. Encourage to Local female Employment as Labor and skilled man power.
- ii. Manage separate Camp and necessary facilities for female workers to encourage of female Employment. Camps and construction sites are regularly been monitored to find the status of



working force.

### 3.4.4. STATUS OF SOCIAL AND ENVIRONMENTAL SAFEGUARD MEASURES

The present status to this regard has been reported as below:

During the site visit for Socio Environment monitoring by DSC Environmental and Social Safeguard Expert on date 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> December, 2018 following issues were found. Social Safeguard revisited the site on 29<sup>th</sup>, 30<sup>th</sup> and 31<sup>st</sup> December.

- i. Efforts are being made to control dust emission at construction site by sprinkling water. As personal safety was given prime importance, construction workers were made to use helmet, globe and jacket while on the construction site.
- ii. Besides that, special attentions were given on the placement of safety board and traffic signboards, safety tools, barricades, tapes, etc. and special care were taken to make sign boards big enough to make them visible from distant.
- iii. Taking into consideration of the fact that the involvement of the significant numbers of female as employee in ADB project is the main project objective of ADB, contractor paid especial attention to have a separate toilet and separate labor camp for female that facilitates and encourages female to get work in the construction field.
- iv. Significant improvement was found to be done in health and sanitation issues in the labor camp than in the previous monitoring visit; like, quality and quantity of drinking water was improved and condition of toilet was found to be enhanced. However, to meet the sanitation condition to predetermined level, further instructions were given by contractor to make provision for sufficient water in toilet and soap for hand-wash. Furthermore, yard in charge was suggested to have sufficient medications, bandages and other necessary first aid equipment's.

The implementation of Social and Environmental Safeguard measures during this month were found partially satisfactory.

### 3.4.5. STATUS OF RELOCATION OF SERVICES

Relocation of water supply pipe lines were ongoing at R6, Tinpaini chowk, B2 and at Pratibha chowk, etc. The supply has been providing temporarily as per site condition where required. Relocation of electric poles in R2, Jahada road, R7 (Neuro to shanti chowk) & R3 are going on.

**Table – 5: Status of Labor at Site**

| Labour class | Labour    |            | Composition |          | Ethnic composition |           |           |            |                 |
|--------------|-----------|------------|-------------|----------|--------------------|-----------|-----------|------------|-----------------|
|              | Skilled   | Unskilled  | Male        | Female   | Janjati            | Dalit     | Muslim    | Madhesi    | Brahmin/Chhetri |
| Local        | 19        | 38         | 57          | 0        | 2                  | 6         | 0         | 49         | 0               |
| Non local    | 46        | 143        | 189         | 0        | 70                 | 22        | 9         | 88         | 0               |
| Indian       | 8         | 22         | 30          | 0        | 0                  | 0         | 8         | 22         | 0               |
| <b>TOTAL</b> | <b>73</b> | <b>203</b> | <b>276</b>  | <b>0</b> | <b>72</b>          | <b>28</b> | <b>17</b> | <b>159</b> | <b>0</b>        |



### 3.5. FINANCIAL PLAN

The Sub-project cost will be disbursed in three years starting from FY2074/2075 to 2076/2077

#### 3.5.1. DISBURSEMENT RECORDS IN CONSTRUCTION

**Table – 6: DISBURSEMENT RECORDS in CONSTRUCTION**

| S. No.  | Description | Submission date                 | Covering date  | Submitted Amount(NRs)   | Remarks              |
|---|-------------|---------------------------------|--|-------------------------|----------------------|
| 1   | IPC 01      | 15 <sup>th</sup> October 2017   |  | 339,105,000.00          | Mobilization Advance |
| 2   | IPC 02      | 2 <sup>nd</sup> April 2018      | 2nd November 2017 to 31st March 2018                         | 261,501,492.21          |                      |
| 3   | IPC 03      | 1 <sup>st</sup> July 2018       | 1st April 2018 to 30th June 2018                             | 316,582,708.58          |                      |
| 4   | IPC 04      | 1 <sup>st</sup> October 2018    | 1st July 2018 to 31st September 2019                         | 105,227,887.16          |                      |
| 5   | IPC 05      | 2 <sup>nd</sup> December 2018   | 1st October 2018 to 30th November 2018                       | 95,951,603.44           |                      |
| 6   | IPC 06      | 31 <sup>st</sup> January 2019   | 1st December 2018 to 31st January 2019                       | 264,937,394.98          |                      |
| 7   | IPC 07      | 12 <sup>th</sup> April 2019     | 1st February 2019 to 31st March 2019                         | 308,805,662.97          |                      |
| 8   | IPC 08      | 9 <sup>th</sup> May 2019        | 1st April 2019 to 30th April 2019                            | 106,210,198.68          |                      |
| 9   | IPC 09      | 10 <sup>th</sup> June 2019      | 1st May 2019 to 31st May 2019                                | 90,419,375.33           |                      |
| 10  | IPC 10      | 11th July 2019                  | 1st June 2019 to 30th June 2019                              | 67,863,056.59           |                      |
| 11  | IPC 11      | 30 <sup>th</sup> September 2019 | 1 <sup>st</sup> July 2019 to 30 <sup>th</sup> September 2019 | 95,296,297.30           |                      |
| <b>Total amount excluding PA &amp; Mobilization advance till date =</b> |             |                                 |  | <b>1,712,795,677.24</b> |                      |



## 4. OBJECTIVES AND SCOPE OF WORKS

### 4.1. OBJECTIVES

The following are the expected physical infrastructure improvement outputs of the project in Biratnagar:

- Drainage and sewerage systems improvement.
- Urban roads and lanes improvement.

Reference to the deliverables identified in the Project, indicates that there are a number of deliverables related specifically to the design aspects of the above infrastructure improvements with construction works.

### 4.2. SCOPE OF WORKS

The scope of works for consultant's services is fairly detailed in the TOR attached with contract Agreement. The main points are summarized below:

- Detailed Design and Procurement Assistance Phase for integrated solid waste management design (ISWM)
- Monthly progress report and quarterly progress report.
- Semi- annual Environmental monitoring report.
- Semi-annual Safeguard monitoring report.
- Annual progress report including annual Environmental / Social safeguard monitoring report, assets.
- Detailed draft final report for our puts, including to assist the PIU (Employer), status of all supervision and construction works issues, all deliverables under the contacts.
- Sub project completion report, and summary of all other reports, progress and issues under the project.



#### 4.3. ORGANIZATION AND STAFFING

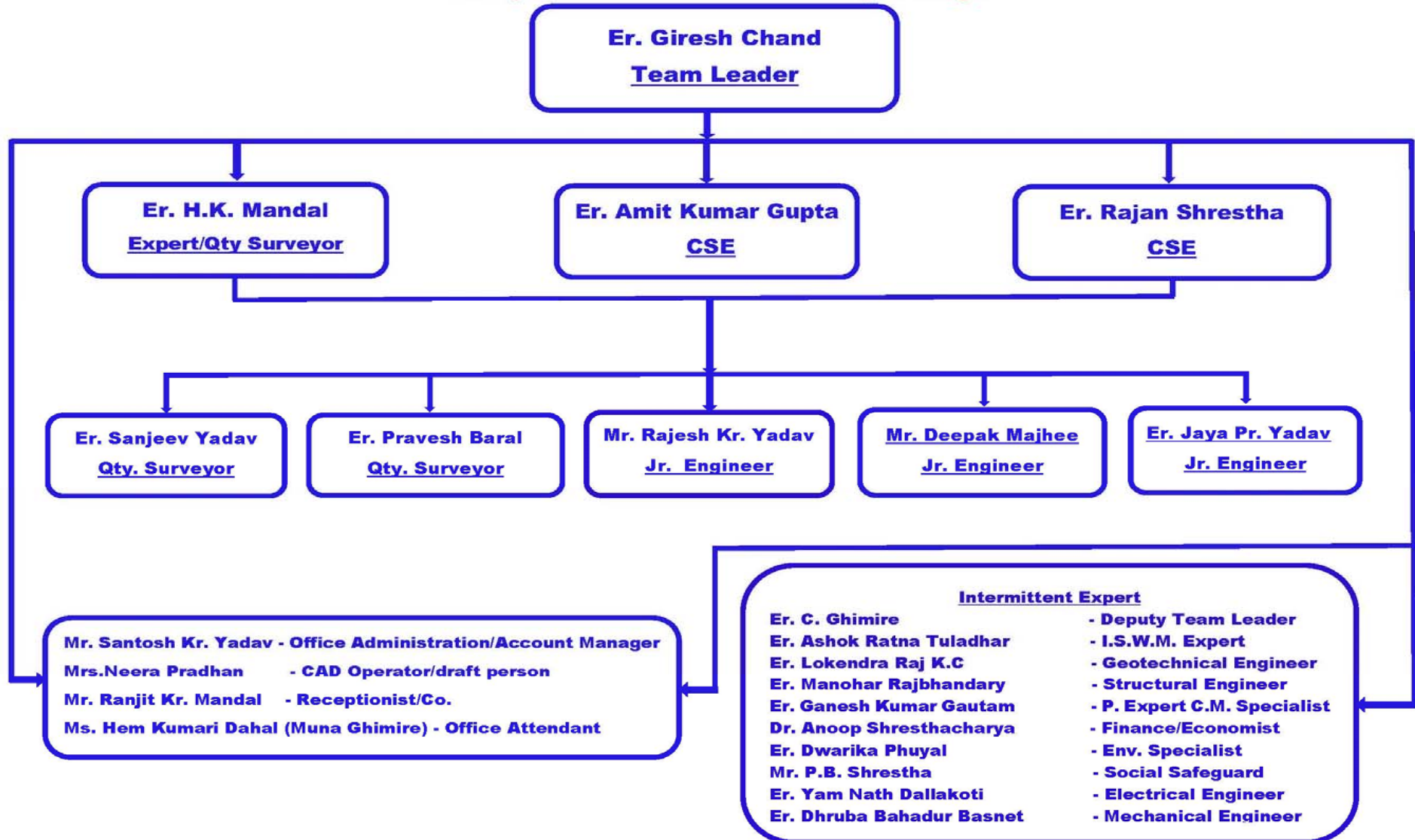
Attached





## ORGANIZATION CHART

RUDP (ADB Loan No - 47252 Site Office, Biratnagar)





#### 4.4. CONSULTANT'S ACTIVITIES IN CONSTRUCTION PHASE

The current staffing of the consultant at project site is as follows:

**Table 7: CONSULTANT'S STAFF at Project Site, Biratnagar**

| SN | Name                                | Designation                           | Joining date               | Remarks                                       |
|----|-------------------------------------|---------------------------------------|----------------------------|---|
| 1  | Mr. Giresh Chand                    | Team Leader                           | 6 <sup>th</sup> Sep 2017   |   |
| 2  | Mr. Ashok Ratna Tuladhar            | ISWM ( Designer)                      | 6 <sup>th</sup> Sep 2017   | Intermittent                                  |
| 3  | Mr. Dwarika Phuyal                  | Environmental Safeguard Expert        | 1 Nov 2017                 | Intermittent                                  |
| 4  | Mr. Prakash Bhakata Shrestha        | Social Safeguard Monitoring Expert    | 26 <sup>th</sup> dec-2017  | Intermittent                                  |
| 5  | Mr. Hare Krishna Mandal             | Expert/Quantity surveyor              | 1 <sup>st</sup> Nov 2017   |   |
| 6  | Mr. Amit Kumar Gupta                | Construction Supervision Engineer     | 1 <sup>st</sup> March 2018 |   |
| 7  | Mr. Rajan Shrestha                  | CSE/Quantity Surveyor                 | 7 <sup>th</sup> Nov 2017   | Working as CSE from 1 <sup>st</sup> May 2019. |
| 8  | Mr. Rajesh Kumar Yadav              | Junior Engineer-1                     | 6 <sup>th</sup> Sep 2017   |   |
| 9  | Mr. Sanjeev Yadav                   | Qty. Surveyor                         | 5 <sup>th</sup> Nov 2017   |   |
| 10 | Mr. Santosh Kumar Yadav             | Office Administration/Account Manager | 6 <sup>th</sup> Sep 2017   |   |
| 11 | Mr. Hem Kumari Dahal (Muna Ghimire) | Office Attendant                      | 6 <sup>th</sup> Sep 2017   |   |
| 12 | Mr. Ranjit Kumar Mandal             | Receptionist                          | 10 <sup>th</sup> Dec 2017  |   |
| 13 | Mr. Pravesh Baral                   | Junior Engineer-2                     | 10 <sup>th</sup> Dec 2017  |   |
| 14 | Mr. J.P Yadav                       | Junior Engineer-3                     | 1 <sup>st</sup> March 2018 |   |
| 15 | Mr. Deepak Majhi                    | Junior Engineer-4                     | 1 <sup>st</sup> March 2018 |   |
| 16 | Mrs. Neera Pradhan                  | CAD operator/Draft Person             | 10 <sup>th</sup> Dec 2017  |   |
| 17 | Mr. Yubraj Poudel                   | Driver                                | 10 <sup>th</sup> Feb-2019  |   |

The consultant has been constantly supervising the contractor's work in daily basis. The consultant is mainly focusing in construction management, contract administration and the following activities but not limited as listed below:

- i. Daily Construction supervision/Surveying works etc.
- ii. Quality control, cost control and time control
- iii. Measurement and Certification of Interim Payment Certificates (IPC)
- iv. Modification and design of Road side drain, storm drainage and sewer lines, manholes etc. as per site condition and approve working drawings as discussed/advised by employer.
- v. Supervise construction material testing and sampling
- vi. Monitor Environment Management Plan and its compliance
- vii. Monitor Social safeguard and Resettlement Plan and its compliance
- viii. Prepare Due Diligence Report of the Project
- ix. Maintain correspondences with the Employer and the Contractor
- x. Assisting PIU

## 5. PROGRESS OF SUB – PROJECT COMPONENTS

### 5.1. CONSTRUCTION MATERIALS.

Before using any construction material in the project, as per clause 7.3, engineer gave prior notice to contractor for joint inspection of the construction materials and all materials have been jointly checked and verified. Team leader issued letter to contractor to do the lab test of the construction materials from the authorized organizations and lab reports of the tested materials have been submitted by contractor. Engineer has emphasized on the production of the pre-cast item like (Kerb stone, drain cover slab, manhole etc.) for better work progress of the project. The Contractor has established three production yards at Koshi project, Madhumara and Judi contractor camp for pre-cast items like Kerb stone, drain cover slab, sewer precast elements, etc. but as more than 75% work done so that the production yard at Koshi project has been closed and production are going on.

The Contractor has informed to borrow RCC NP-3 pipes from Itahari Hume pipe factory or other location and also requested for three Edge bearing test. It has been tested in presence of consultant TL, PIU and contractor representative.

### 5.2. PROGRESS ACHIEVED TILL DATE

| Month                              | Target This Month |                   | Achievement This Month |                   | Leading |             | Lagging |                    | Remarks |
|------------------------------------|-------------------|-------------------|------------------------|-------------------|---------|-------------|---------|--------------------|---------|
|                                    | Monthly           | Accumulated       | Monthly                | Accumulated       | Monthly | Accumulated | Monthly | Accumulated        |         |
| July-18                            | 0.15%             | 25.17%            | 0.78%                  | 25.18%            | 0.63%   | 0.01%       |         |                    | Leading |
| August-18                          | 0.15%             | 25.32%            | 2.32%                  | 27.50%            | 2.17%   | 2.18%       |         |                    | Leading |
| September-18                       | 5.71%             | 31.03%            | 1.22%                  | 28.72%            |         |             |         | -2.31%             | Lagging |
| October-18                         | 7.72%             | 38.75%            | 2.30%                  | 31.03%            |         |             |         | -7.72%             | Lagging |
| November-18                        | 7.72%             | 46.47%            | 5.20%                  | 36.22%            |         |             |         | -10.25%            | Lagging |
| December-18                        | 7.95%             | 54.41%            | 3.40%                  | 39.62%            |         |             |         | -14.79%            | Lagging |
| January-19                         | 7.96%             | 62.37%            | 5.65%                  | 45.27%            |         |             |         | -17.10%            | Lagging |
| <del>February-19</del>             | <del>7.96%</del>  | <del>70.33%</del> | <del>5.11%</del>       | <del>50.38%</del> |         |             |         | <del>-19.95%</del> | Lagging |
| February-19<br>(after<br>Revision) | 5.33%             | 50.03%            | 5.11%                  | 50.38%            |         | 0.35%       |         |                    | Leading |
| March -19                          | 7.75%             | 57.77%            | 7.84%                  | 58.21%            |         | 0.44%       |         |                    | Leading |
| April-19                           | 6.82%             | 64.59%            | 4.53%                  | 62.74%            |         |             |         | -1.85%             | Lagging |
| May-19                             | 6.49%             | 71.08%            | 4.54%                  | 67.28%            |         |             |         | -3.80%             | Lagging |
| June-19                            | 3.95%             | 75.03%            | 2.05%                  | 69.33%            |         |             |         | -5.70%             | Lagging |



| Month        | Target This Month |             | Achievement This Month |             | Leading |             | Lagging |             | Remarks |
|--------------|-------------------|-------------|------------------------|-------------|---------|-------------|---------|-------------|---------|
|              | Monthly           | Accumulated | Monthly                | Accumulated | Monthly | Accumulated | Monthly | Accumulated |         |
| July-19      | 3.90%             | 78.93%      | 2.19%                  | 71.52%      |         |             |         | -7.41%      | Lagging |
| August-19    | 4.97%             | 83.90%      | 2.01%                  | 73.53%      |         |             |         | -10.37%     | Lagging |
| September-19 | 7.45%             | 91.35%      | 4.97%                  | 78.50%      | NA      | NA          | -2.48%  | -12.85%     | Lagging |
| October-19   | 8.56%             | 99.91%      | 1.14%                  | 79.64%      | NA      | NA          | -7.42%  | -20.27%     | Lagging |

### 5.3. KEY EVENTS

The consultant has noted the following key dates for this month.

**Table 8: KEY DATES of EVENTS / ACTIVITIES**

| S. No. | Date | Activities/Events   | Remarks |
|--------|------|---|---------|
| 1      |      | Frequent visit of sites by the representatives of the employer. |         |

**Note:** *the work progress found very slow due to reasons below:*

- *Due to delay in relocation of electric & telecom poles and services*
- *Unclear Right of Way (RoW)*
- *Delay on approval of VO-01, etc.*

## 6. DETAILS OF PRE CAST ACTIVITIES.

Table 9: PHYSICAL PROGRESS in PRODUCTION OF PRECAST ITEMS till date,

| Physical Progress till date |              |      |            |                            |                  |                     |                |
|-----------------------------|--------------|------|------------|----------------------------|------------------|---------------------|----------------|
| S.N.                        | Description  | Unit | Progress   |                            |                  | Total to Date (RM.) | Remarks        |
|                             |              |      | BoQ        | Up to Previous month (RM.) | This Month (RM.) |                     |                |
| 1                           | Precast Slab | No   |            | 77,871.00                  | 2,000.00         | 79,871.00           | Under progress |
| 2                           | Kerb Stone   | Rm   | 147,729.68 | 91,293.30                  | 1,000.00         | 92,293.30           | 62.47%         |

Table 10: PHYSICAL PROGRESS in PRODUCTION/PURCHASE OF RCC Hume Pipe at Itahari till date,

| Physical Progress till date |              |               |          |                            |                  |                     |         |
|-----------------------------|--------------|---------------|----------|----------------------------|------------------|---------------------|---------|
| S.N.                        | Description  | Diameter (mm) | BoQ (RM) | Progress                   |                  | Total to Date (RM.) | Remarks |
|                             |              |               |          | Up to Previous month (RM.) | This Month (RM.) |                     |         |
| 1                           | RCC Pipe     | 300           | 336.00   | 336.00                     | -                | 336.00              |         |
| 2                           | RCC Pipe     | 450           | 681.00   | 681.00                     | -                | 681.00              |         |
| 3                           | RCC Pipe     | 500           | 842.00   | 842.00                     | -                | 842.00              |         |
| 4                           | RCC Pipe     | 600           | 382.00   | 382.00                     | -                | 382.00              |         |
|                             | <b>Total</b> |               |          |                            |                  |                     |         |

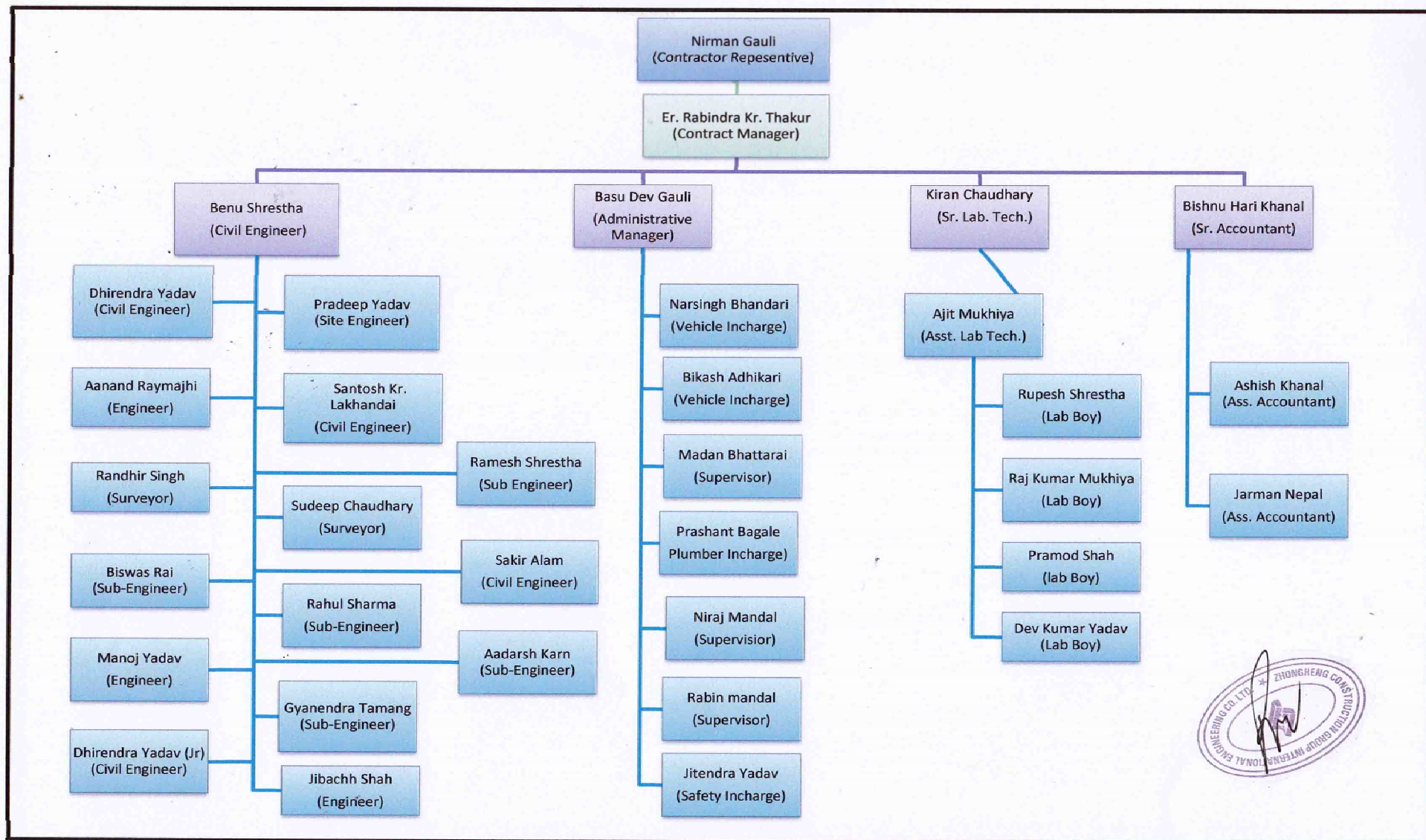
**Table 11: PHYSICAL PROGRESS in PRODUCTION/PURCHASE OF HDPE Pipe till date.**

| <i>Physical Progress till date</i> |                    |                      |                 |                                   |                         |                            |                      |
|------------------------------------|--------------------|----------------------|-----------------|-----------------------------------|-------------------------|----------------------------|----------------------|
| <i>S.N.</i>                        | <i>Description</i> | <i>Diameter (mm)</i> | <i>Progress</i> |                                   |                         | <i>Total to Date (RM.)</i> | <i>Remarks</i>       |
|                                    |                    |                      | <i>BoQ (RM)</i> | <i>Up to Previous month (RM.)</i> | <i>This Month (RM.)</i> |                            |                      |
| 1                                  | HDPE Pipe          | 110.00               | 1,987.20        | 4,487.20                          | -                       | 4,487.20                   | <b>Under process</b> |
| 2                                  | HDPE Pipe          | 200.00               | 16,656.00       | 16,500.00                         | -                       | 16,500.00                  |                      |
| 3                                  | HDPE Pipe          | 250.00               | 115.00          | 450.00                            | -                       | 450.00                     |                      |
|                                    | <b>Total</b>       |                      |                 |                                   |                         |                            |                      |

**Table 12: PHYSICAL PROGRESS in PRODUCTION/PURCHASE OF UPVC Pipe till date.**

| <i>Physical Progress till date</i> |                    |                      |                 |                                  |                         |                            |                |
|------------------------------------|--------------------|----------------------|-----------------|----------------------------------|-------------------------|----------------------------|----------------|
| <i>S.N.</i>                        | <i>Description</i> | <i>Diameter (mm)</i> | <i>Progress</i> |                                  |                         | <i>Total to Date (RM.)</i> | <i>Remarks</i> |
|                                    |                    |                      | <i>BoQ (RM)</i> | <i>Up to Previous month (RM)</i> | <i>This Month (RM.)</i> |                            |                |
| 1                                  | UPVC Pipe          | 160.00               | 5,050.00        | 5,050.00                         |                         | 5,050.00                   |                |
| 2                                  | UPVC Pipe          | 110.00               | 5,050.00        | 5,050.00                         |                         | 5,050.00                   |                |

**Details of Contractor's Site Personnel**



## 7. CONTRACTOR'S MANPOWER

Table 13: CONTRACTOR'S KEY STAFFS

| S. No. | Position  | Minimum Number Required as per Contract | ZHONGHENG CONSTRUCTION Group | Remarks |
|--------|---|---|------------------------------|---------|
| 1      | Project/Contract Manager (1 No)<br>15/10 Yrs.<br>(Total/Similar Exp.) | 1                                       | 1                            |         |
| 2      | Civil Engineer-10/6   | 2                                       | 2                            |         |
| 3      | Sanitary Engineer- (1no.)-12/8  | 1                                       | -                            |         |
| 4      | Road Engineer- (1no.)-12/8  | 1                                       | 1                            |         |
| 5      | Electromechanical Engineer-(1no)-10/5                                 | 1                                       | -                            |         |
| 6      | Safety Engineer   | -                                       | 1                            |         |
| 7      | Site Engineer   | -                                       | 8                            |         |
| 8      | Sub- Engineer   | -                                       | 7                            |         |
| 9      | Accountant  | -                                       | 3                            |         |
| 10     | Lab Technician  | -                                       | 6                            |         |
| 11     | Store Keeper  | -                                       | 1                            |         |
| 12     | Vehicle In charge   | -                                       | 2                            |         |
| 13     | Skilled Labors  |   | 73                           |         |
| 14     | Unskilled Labors  |   | 203                          |         |



## 8. CONTRACTOR'S EQUIPMENT

**Table 14: CONTRACTOR'S EQUIPMENT**

| S. No. | Equipment Type and Characteristics                            | Min Number required as per Contract | ZHONGHENG CONSTRUCTION Group | Remarks                          |
|--------|---|-------------------------------------|------------------------------|----------------------------------|
| 1      | Excavator (200 above)   | 5                                   | 1                            | Backhoe loader-9 nos.            |
| 2      | Crane (10 ton capacity)                                       | 3                                   | -                            |                                  |
| 3      | Asphalt plant of adequate capacity                            | 1                                   | 1                            |                                  |
| 4      | Asphalt pavers  | 1                                   | 1                            |                                  |
| 5      | Vibrating roller  | 2                                   | 4                            | Among 4nos., 2ton rollers -2nos. |
| 6      | Pneumatic tyre roller 8 to 10 ton                             | 2                                   | 1                            |                                  |
| 7      | Smooth wheeled roller 8 to 10 ton                             | 1                                   | 1                            |                                  |
| 8      | Grader  | 1                                   | 3                            |                                  |
| 9      | Track Dozer (120 to 180 HP)                                   | 1                                   | -                            |                                  |
| 10     | Bitumen distributor (4 to 6 Kilo Litres)                      | 1                                   | 1                            |                                  |
| 11     | Water browser ( minimum 5000 Litres)                          | 3                                   | 9                            |                                  |
| 12     | Chips spreader  | 1                                   | -                            |                                  |
| 13     | Bitumen decanter minimum 4000 Litres. ( preheating container) | 2                                   | 2                            |                                  |
|        | Air compressor  | 2                                   | 2                            |                                  |
| 14     | Tipping Trucks  | 5                                   | 2                            |                                  |
| 15     | Service vehicle   | 15                                  | 4                            |                                  |
| 16     | Survey equipment (Total station with accessories)             | 2                                   | 1                            |                                  |



| S. No. | Equipment Type and Characteristics | Min Number required as per Contract | ZHONGHENG CONSTRUCTION Group | Remarks |
|--------|------------------------------------|-------------------------------------|------------------------------|---------|
| 17     | Theodolite                         | 1                                   | -                            |         |
| 18     | Levelling                          | 2                                   | 27                           |         |
| 19     | Mobile Generator 15-20 KVA         | 5                                   | 10                           |         |
| 20     | Mixer Machine                      | 3                                   | 5                            |         |
| 21     | Concrete Batching Plant            | 1                                   | -                            |         |
| 22     | Concrete pump                      | 1                                   | -                            |         |
| 23     | Drain cleaner/ Nala cleaner        | 2                                   | -                            |         |
| 24     | Broomer                            | -                                   | 1                            |         |
| 25     | Motor Bike                         | -                                   | 11                           |         |
| 26     | Plate Compactor                    | -                                   | 5                            |         |
| 27     | Water Pump                         | -                                   | 14                           |         |

## 9. WORK PLAN FOR THE NEXT MONTH

Following are the Contractor's works in the next month program.

- Detail Surveying works at various Road sections.
- Road works
- Precast elements production works at contractor's yard.
- Road Side drain works.
- Laying of Kerb Stone, cover slab and interlocking tiles.
- Placement of Sewer inlet and House Connection works.
- Relocation of electric poles and water supply works, etc.



## ANNEX-1: Photographs of October, 2019





Rejection of Bricks from site



Rejection of pre-cast slab





Asphalt work at R2



Brick drain work at N34





Asphalt work at R6



Base work at R7



Brooming work at R41 – Jahada Marga

ANNEX-2: Minutes of Meeting October, 2019





Minutes of Meeting No.: 27 – RUDP, Biratnagar

**MINUTES OF MEETING - 27****Contract:** Regional Urban Development Project (RUDP), Biratnagar, RUDP/ICB/BRT/2**Date:** 17 October 2019**Time:** 4:30 PM**Venue:** PIU, Biratnagar**Attendance**

|             |                               |  |
|-------------|-------------------------------|--|
| Employer:   |                               |  |
| 1           | Mr. Bhim Parajuli             | Mayor, BMC                                 |
| 2           | Mr. Ekadev Adhikari           | Chief Administrative Officer (CAO), BMC    |
| 3           | Mr. Bharat Kumar Nuepane      | Project Manager (PM), PIU                  |
| 4           | Mr. Prakash Narayan Chaudhary | Deputy Project Manager (DPM), PIU          |
| 5           | Mr. Punam Kumar Dahal         | S.D.O, PIU                                 |
| 6           | Mr Anil Singh                 | Electrical Engineer, PIU                   |
| 7           | Mr Ghanashyam Kafley          | Project Engineer (PE), PIU                 |
| 8           | Mr. Mister K.C.               | Account Officer, PIU                       |
| 9           | Mr. Tribhusan Giri            | P.A. to Mayor, BMC                         |
| 10          | Mr. Purushottam Lamichhane    | Asst. Administration, PIU                  |
| 11          | Mr. Sabin Dahal               | BMC  |
| Contractor: |                               |  |
| 1           | Mr. Ravindra Kumar Thakur     | CM, M/S Zhongheng Construction Group       |
| 2           | Mr. Pradeep Yadav             | Engineer, M/S Zhongheng Construction Group |
| Consultant: |                               |  |
| 1           | Mr. Gireesh Chand             | Team Leader (TL), DSC                      |
| 2           | Mr Hare Krishna Mandal        | Engineer, DSC                              |

The meeting was chaired by Mayor, Mr. Bhim Parajuli and welcomed all the participants in the meeting. Following agendas/matters were discussed and decided:

| S. NO. | Minutes   | Action by                           |
|--------|---|-------------------------------------|
| 1      | <p>PM, Mr Bharat briefed the progress of the project and TL, Mr. Chand briefed about the present status about project/ progress under RUDP: Progresses till the end of September 2019:<br/>Physical progress: 78.50%<br/>Financial progress: 65.60%<br/>Problem Facing:</p> <ul style="list-style-type: none"> <li>• Delay in approval of Variation order</li> <li>• Relocation of electricity and telecom poles</li> <li>• Delay on payment of relocation of water supply, etc.</li> </ul> <p>CM, Mr Thakur emphasized that due to above problems directly affect the progress of the project.</p> | The employer, contractor consultant |

Minutes of Meeting – RUDP, Biratnagar

|   |  |                                       |
|---|--|---------------------------------------|
| 2 | <p>Mayor, Mr. Parajuli asked about the work progress in Main road (R2).</p> <p>CM, Mr Thakur informed that the progress is hampering due to delay in relocation of electricity &amp; telecom poles. Also, he informed that during shut down from NEA to relocate the electric poles, some shop keepers still don't power off their generator which practically raise the safety issues to perform the work and requested to take immediate action to stop this kind of act from any users.</p> <p>Mayor, Mr. Parajuli then instructed to sort out the above problems as soon as possible and deputed the job responsibilities &amp; full time presence at site by the individual named below:</p> <ul style="list-style-type: none"> <li>a) To sort out shut down and generator operation control by<br/>Mr. Punam Kumar Dahal<br/>Mr. Anil Singh</li> <li>b) Relocation of Telecom poles and clearance of unwanted/hanging cables by<br/>Mr. Ghanishyam Kafley<br/>Mr. Tribhushan Giri</li> <li>c) To solve the Sani Mandir to Jaljala chowk ROW disputes by<br/>Mr. Prakash Narayan Chaudhary<br/>Mr. Punam Kumar Dahal</li> </ul> <p>and asked to report about feedback during coming meeting which going to chair on 20<sup>th</sup> Oct 2019, Sunday at 6:00 PM.</p> <p>Mayor, Mr. Parajuli as well as CAO, Mr. Adhikari added that if demanded, they'll be available at site to sort out any disputes so the progress in main road (R2) will not retard. They asked to complete the remaining work at R2 as early as possible.</p> <p>CM, Mr. Thakur admitted and agreed to speed up the progress.</p> | The employer, contractor & consultant |
| 3 | <p>BMC and PIU instructed to submit revised VO-1 as soon as possible for further action which certainly include the municipality financing of Forty Million for relocation of water supply pipe lines as minuted earlier.</p> <p>TL, Mr Chand agreed to submit above revised VO-1 with incorporate of above mentioned work by 20<sup>th</sup> Oct 2019, Sunday.</p>  | The employer, contractor & consultant |

Handwritten signatures and initials are present below the table, including names like Mr. Parajuli, Mr. Thakur, Mr. Adhikari, Mr. Chand, and others.

A circular stamp of the Regional Urban Development Project (RUDP) is visible, with the text "RUDP" in the center and "Biratnagar" at the bottom.

ANNEX-3: Laboratory Test Results of October, 2019  
**ATTACHED**





Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Monthly Test Report of 20mm Agg.

[illegible]

**Biratnagar Metropolitan City**  
**Contract No:- RUDP/ICB/BRT-02**  
**Summary Sheet Of Monthly Test Report**











**Biratnagar Metropolitan City**  
**Contract No:- RUDP/ICB/BRT-02**

**Contract No:- RUDP/ICB/BRT-02**

## Summary Sheet of Monthly Test Report

**Location :-R-6,(Balaju temple to neuro road)**

[illegible]

| Contractor  | Consultant   |
|---|--|
| <p>ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL<br/>ENGINEERING CO. LTD</p>  | <p>BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY<br/>PVT. LTD AND PLUS ENGINEERS &amp; ARCHITECTS (P) LTD, KATHMANDU, NEPAL</p> |
| <p>Checked By<br/><i>[Signature]</i></p> <p>Engineer<br/>Benu Shrestha</p>  | <p>Submitted By<br/><i>[Signature]</i></p> <p>Contract Manager<br/>Rabindra K'r. Thakur</p>  |
|   | <p>Verified By<br/><i>[Signature]</i></p> <p>Expert Qty Surveyor/CSE<br/>H K Mandal/Rajan Shrestha</p>   |
|   | <p>Approved By<br/><i>[Signature]</i></p> <p>Team Leader<br/>Gireesh Chand</p>   |



**Biratnagar Metropolitan City**  
**Contract No:- RUDP/ICB/BRT-02**

### Summary Sheet of Field Density Test

**Location:-R-6,(Blaju temple to neuro road)**



## Biratnagar Metropolitan City

Contract No: RUDP/ICB/BRT-02

## Summary Sheet of Monthly Test Report

[illegible]



### Summary Sheet of Field Density Test

**Location:-R-6,(Balaju temple to Neuro Road)**



## Summary Sheet of Monthly Test Report

1

**BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH  
B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS &  
ARCHITECTS (P) LTD, KATHMANDU, NEPAL**

Verified By  
Expert Qty Surveyor/CSE  
H.K. Mandal/Rajan Shrestha

Approved By  
Team Leader  
Gireesh Chand





**Biratnagar Metropolitan City**  
**Contract No:- RUDP/ICB/BRT-02**

**Location:-R-9,(R-37 to R-40)**

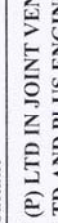



## Biratnagar Metropolitan City

Contract No: RUDP/ICB/BRT-02

## Summary Sheet of Monthly Test Report

[illegible]

|   |   |
|---|---|
| <p><b>Contractor</b></p> <p><b>ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD</b></p>   | <p><b>Consultant</b></p> <p><b>BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH<br/>B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS &amp;<br/>ARCHITECTS (P) LTD, KATHMANDU, NEPAL</b></p>                                |
| <p>.....<br/><b>Checked By</b><br/>Engineer</p> <p>.....<br/><b>Submitted By</b><br/>Contract Manager</p> <p>.....<br/><b>Verified By</b><br/>Expert Qty Surveyor/CSE</p> <p>.....<br/><b>Approved By</b><br/>Team Leader</p>  | <p>.....<br/><b>Checked By</b><br/>Engineer</p> <p>.....<br/><b>Submitted By</b><br/>Contract Manager</p> <p>.....<br/><b>Verified By</b><br/>Expert Qty Surveyor/CSE</p> <p>.....<br/><b>Approved By</b><br/>Team Leader</p> |





**Location:-T2L24G**



## Summary Sheet of Monthly Test Report








| REGIONAL URBAN DEVELOPMENT PROJECT<br>Biratnagar Metropolitan City<br>Contract No: RUDP/ICB/BRT-02  |                           |                 |              |            |                 |   |                                  |                           |                           |   |  |
|---|---------------------------|-----------------|--------------|------------|-----------------|---|----------------------------------|---------------------------|---------------------------|---|--|
| Daily Application Rate Check for Priming work   |                           |                 |              |            |                 |   |                                  |                           |                           |   |  |
| SUMMARY FOR THE MONTH OF OCTOBER 2019.  |                           |                 |              |            |                 |   |                                  |                           |                           |   |  |
| Type of Bitumen: 80/100 P.G<br>Cutter Percentage: MC 70:MC 30                                       |                           |                 |              |            |                 |   |                                  |                           |                           |   |  |
| SN NO   | Location                  | Date of Priming | Station From | Station to | Side of Priming | Area of Priming (m <sup>2</sup> )   | Intersection Area m <sup>2</sup> | Total Area M <sup>2</sup> | Bitumen Consumption (Ltr) | Application Rate By Deep Ltr/m <sup>2</sup> | Application Rate Bt Tray Test Ltr/m <sup>2</sup> |
| 1   | T3L13H                    | 13-Oct-19       | 0+000        | 0+068      | Both side       | 230.52  | 0.00                             | 230.52                    | 250                       | 1.08  | 1.05   |
| 2   | T3L13K                    | 13-Oct-19       | 0+000        | 0+074      | Both Side       | 236.80  | 0.00                             | 236.80                    | 250                       | 1.06  | 1.03   |
| 3   | R-107                     | 13-Oct-19       | 0+000        | 0+174      | Both Side       | 748.20  | 0.00                             | 748.20                    | 800                       | 1.07  | 1.04   |
| 4   | T3L12I                    | 13-Oct-19       | 0+000        | 0+050      | Both Side       | 190.00  | 0.00                             | 190.00                    | 200                       | 1.05  | 1.03   |
| 5   | T3L13I                    | 13-Oct-19       | 0+000        | 0+050      | Both Side       | 195.00  | 0.00                             | 195.00                    | 200                       | 1.03  | 1.02   |
| 6   | R-41(T3L11H)              | 14-Oct-19       | 0+000        | 0+520      | Both Side       | 3296.80   | 0.00                             | 3296.80                   | 3450                      | 1.05  | 1.04   |
| 7   | R-2                       | 16-Oct-19       | 0+600        | 0+730      | Both Side       | 1332.50   | 0.00                             | 1332.50                   | 1450                      | 1.09  | 1.05   |
| 8   | R-7, South of Neuro Chowk | 16-Oct-19       | 0+000        | 0+555      | Both Side       | 4018.20   | 0.00                             | 4018.20                   | 4250                      | 1.06  | 1.05   |
| 9   | R-34                      | 17-Oct-19       | 0+000        | 0+157      | Both Side       | 519.67  | 0.00                             | 519.67                    | 550                       | 1.060                                       | 1.03   |
| Required specification for Prime coat 1.0 Lit/M <sup>2</sup> ± 5% Specific Gravity of Bitumen 1.034 |                           |                 |              |            |                 |   |                                  |                           |                           |   |  |
| Contractor  |                           |                 |              |            |                 | Consultant  |                                  |                           |                           |   |  |
| ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD                                      |                           |                 |              |            |                 | BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL |                                  |                           |                           |   |  |
| Checked By<br>Engineer<br>Bijay Shrestha  |                           |                 |              |            |                 | Submitted By<br>Contract Manager<br>Rabindra K. Thakur  |                                  |                           |                           |   |  |
| Verified By<br>Expert Qty Surveyor/CSE<br>H.K. Mandal/Rajan Shrestha                                |                           |                 |              |            |                 | Approved By<br>Team Leader<br>Gireesh Chand   |                                  |                           |                           |   |  |










| REGIONAL URBAN DEVELOPMENT PROJECT<br>Biratnagar Metropolitan City<br>Contract No: RUDP/ICB/BRT-02  |                                  |                 |              |            |                 |   |                                  |                           |                           |   |   |
|---|----------------------------------|-----------------|--------------|------------|-----------------|---|----------------------------------|---------------------------|---------------------------|---|---|
| Daily Application Rate Check for Priming work   |                                  |                 |              |            |                 |   |                                  |                           |                           |   |   |
| SUMMARY FOR THE MONTH OF OCTOBER 2019   |                                  |                 |              |            |                 |   |                                  |                           |                           |   |   |
| Type of Bitumen: 80/100 P.G<br>Cutter Percentage: MC 70: MC 30                                      |                                  |                 |              |            |                 |   |                                  |                           |                           |   |   |
| SN NO   | Location                         | Date of Priming | Station From | Station to | Side of Priming | Area of Priming m <sup>2</sup>  | Intersection Area m <sup>2</sup> | Total Area m <sup>2</sup> | Bitumen Consumption (Ltr) | Application Rate By Deep Ltr/m <sup>2</sup> | Application Rate Bit Tray Test Ltr/m <sup>2</sup> |
| 10  | R-67                             | 17-Oct-19       | 0+000        | 0+157      | Both side       | 731.62  | 0.00                             | 731.62                    | 800                       | 1.09  | 1.05  |
| 11  | R-9, West of Neuro               | 17-Oct-19       | 0+000        | 0+110      | Both Side       | 704.93  | 0.00                             | 704.93                    | 750                       | 1.06  | 1.06  |
| 12  | R-7, (Hospital Chowk)            | 18-Oct-19       | 0+340        | 0+720      | LHS             | 2432.00   | 0.00                             | 2432.00                   | 2550                      | 1.05  | 1.04  |
| 14  | T3L7A                            | 18-Oct-19       | 0+000        | 0+153      | Both Side       | 700.74  | 0.00                             | 700.74                    | 750                       | 1.07  | 1.04  |
| 15  | R-7, (Hospital Chowk)            | 19-Oct-19       | 0+340        | 0+720      | RHS             | 1368.00   | 0.00                             | 1368.00                   | 1450                      | 1.06  | 1.04  |
| 16  | R-6, Balaju temple to Neuro Road | 21-Oct-19       | 0+000        | 0+400      | Both Side       | 2920.00   | 0.00                             | 2920.00                   | 3150                      | 1.08  | 1.05  |
| 17  | R-7, (Siddharth chowk)           | 22-Oct-19       | 0+060        | 0+300      | Both Side       | 1759.20   | 0.00                             | 1759.20                   | 1900                      | 1.008                                       | 1.05  |
| 18  | T3L23C                           | 23-Oct-19       | 0+000        | 0+083      | Both Side       | 429.11  | 0.00                             | 429.11                    | 450                       | 1.05  | 1.04  |
| Total   |                                  |                 |              |            |                 |   |                                  |                           | 23200                     |   |   |
| Required specification for Prime coat 1.0 Lit/M <sup>2</sup> ± 5% Specific Gravity of Bitumen 1.034 |                                  |                 |              |            |                 |   |                                  |                           |                           |   |   |
| Contractor  |                                  |                 |              |            |                 | Consultant  |                                  |                           |                           |   |   |
| ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD                                      |                                  |                 |              |            |                 | BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL |                                  |                           |                           |   |   |
| Checked By<br>Engineer<br>Benu Shrestha   |                                  |                 |              |            |                 | Submitted By<br>Contract Manager<br>Rabindra K. Thakur  |                                  |                           |                           |   |   |
| Verified By<br>Expert Qty Surveyor/CSE<br>H.K. Mandal/Rajan Shrestha                                |                                  |                 |              |            |                 | Approved By<br>Team Leader<br>Gireesh Chand   |                                  |                           |                           |   |   |



| REGIONAL URBAN DEVELOPMENT PROJECT<br>Biratnagar Metropolitan City<br>Contract No: RUDP/ICB/BRT-02<br>Daily Application Rate Check for TACK COAT<br>SUMMARY FOR THE MONTH OF OCTOBER 2019 |                           |                   |              |            |                   |  |                      |               |                     |                                 |                                      |
|---|---------------------------|-------------------|--------------|------------|-------------------|--|----------------------|---------------|---------------------|---------------------------------|--------------------------------------|
| Type of Bitumen: 80/100 P.G   |                           |                   |              |            |                   |  |                      |               |                     |                                 |                                      |
| S.N.  | Location                  | Date of Tack coat | Station From | Station to | Side of Tack coat | Area of Tack coat  | Intersection Area m2 | Total Area M2 | Bitumen Consumption | Application Rate By Deep Lit/m2 | Application Rate Bt Tray Test Lit/m2 |
| 1   | R-41, T3L11H              | 16-Oct-19         | 0+000        | 0+520      | BHS               | 3296.8   | 0                    | 3296.80       | 1800                | 0.55                            | 0.51                                 |
| 2   | T3L13f                    | 17-Oct-19         | 0+000        | 0+050      | BHS               | 175  | 0                    | 175           | 100                 | 0.57                            | 0.51                                 |
| 3   | T3L13H                    | 17-Oct-19         | 0+000        | 0+068      | BHS               | 265.2  | 0                    | 265.20        | 150                 | 0.57                            | 0.54                                 |
| 4   | T3L13K                    | 17-Oct-19         | 0+000        | 0+074      | BHS               | 266.4  | 0                    | 266.40        | 150                 | 0.56                            | 0.52                                 |
| 5   | T3L12                     | 17-Oct-19         | 0+000        | 0+050      | BHS               | 190  | 0                    | 190.00        | 100                 | 0.53                            | 0.47                                 |
| 6   | R-107                     | 17-Oct-19         | 0+000        | 0+174      | BHS               | 748.2  | 0                    | 748.20        | 400                 | 0.53                            | 0.52                                 |
| 7   | R-7, South of neuro chowk | 18-Oct-19         | 0+000        | 0+555      | BHS               | 4018.2   | 0                    | 4018.20       | 2150                | 0.54                            | 0.52                                 |
| Required tack coat is 0.40 to 0.60 Lit/M2 According to Road Note -3, Section 711.2  |                           |                   |              |            |                   |  |                      |               |                     |                                 |                                      |
| Specific Gravity of Bitumen 1.034   |                           |                   |              |            |                   |  |                      |               |                     |                                 |                                      |
| <b>Contractor</b><br><br>ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD              |                           |                   |              |            |                   | <b>Consultant</b><br>BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH<br>B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS &<br>ARCHITECTS (P) LTD, KATHMANDU, NEPAL |                      |               |                     |                                 |                                      |
| Checked By<br>Engineer<br>Berbi Shrestha  |                           |                   |              |            |                   | Submitted By<br>Contract Manager<br>Rabindra Kr. Thakur  |                      |               |                     |                                 |                                      |
| Approved By<br>Team Leader<br>Gireesh Chand   |                           |                   |              |            |                   | Verified By<br>Expert Qty Surveyor/CSE<br>H.K. Mandal/Rajan Shrestha   |                      |               |                     |                                 |                                      |





| REGIONAL URBAN DEVELOPMENT PROJECT<br>Biratnagar Metropolitan City<br>Contract No: RUDP/CB/BRT-02<br>Daily Application Rate Check for TACK COAT<br>SUMMARY FOR THE MONTH OF OCTOBER 2019 |                     |                   |              |            |                   |  |                      |               |                     |                                 |                                       |
|--|---------------------|-------------------|--------------|------------|-------------------|--|----------------------|---------------|---------------------|---------------------------------|---------------------------------------|
| Type of Bitumen: 80/100 P.G  |                     |                   |              |            |                   |  |                      |               |                     |                                 |                                       |
| S.N.   | Location            | Date of Tack coat | Station From | Station to | Side of Tack coat | Area of Tack coat  | Intersection Area m2 | Total Area M2 | Bitumen Consumption | Application Rate By Deep Lit/m2 | Application Rate Bit Tray Test Lit/m2 |
| 8  | R-9, West of Neuro  | 21-Oct-19         | 0+000        | 0+110      | BHS               | 518.1  | 0                    | 518.10        | 300                 | 0.58                            | 0.49                                  |
| 9  | R-34                | 21-Oct-19         | 0+000        | 0+157      | BHS               | 519.67   | 0                    | 519.67        | 300                 | 0.58                            | 0.54                                  |
| 10   | R-2                 | 21-Oct-19         | 0+600        | 0+730      | BHS               | 1332.5   | 0                    | 1332.50       | 750                 | 0.56                            | 0.51                                  |
| 12   | R-67                | 22-Oct-19         | 0+000        | 0+157      | BHS               | 730.05   | 0                    | 730.05        | 350                 | 0.48                            | 0.46                                  |
| 13   | T3L7A               | 22-Oct-19         | 0+000        | 0+155      | BHS               | 658.75   | 0                    | 658.75        | 350                 | 0.53                            | 0.50                                  |
| 14   | R-7, Hospital Chowk | 22-Oct-19         | 0+340        | 0+720      | LHS               | 1881   | 0                    | 1881.00       | 1050                | 0.56                            | 0.52                                  |
| 15   | R-7, Hospital Chowk | 24-Oct-19         | 0+340        | 0+720      | RHS               | 2090   | 0                    | 2090.00       | 1200                | 0.57                            | 0.53                                  |
| Required tack coat is 0.40 to 0.60 Lit/M2 According to Road Note -3, Section 711.2   |                     |                   |              |            |                   |  |                      |               |                     |                                 |                                       |
| Specific Gravity of Bitumen 1.034  |                     |                   |              |            |                   |  |                      |               |                     |                                 |                                       |
| <b>Contractor</b><br><br>ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD             |                     |                   |              |            |                   | <b>Consultant</b><br>BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH<br>B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS &<br>ARCHITECTS (P) LTD, KATHMANDU, NEPAL |                      |               |                     |                                 |                                       |
| Checked By<br><br>Engineer<br>Benu Shrestha   |                     |                   |              |            |                   | Submitted By<br><br>Contract Manager<br>Rabin K. Thakur                           |                      |               |                     |                                 |                                       |
|  |                     |                   |              |            |                   | Verified By<br><br>Expert Qty Surveyor/CSE<br>H.K. Mandal/Rajan Shrestha            |                      |               |                     |                                 |                                       |
|  |                     |                   |              |            |                   | Approved By<br><br>Team Leader<br>Giresch Chand                                     |                      |               |                     |                                 |                                       |

## Daily Application Rate Check for TACK COAT

## SUMMARY FOR THE MONTH OF OCTOBER 2019

Required tack coat is 0.40 to 0.60 Li/M2 According to Road Note -3, Section 711.2

Specific Gravity of Bitumen 1.034

Consultant

**BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH  
B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS &  
ARCHITECTS (P) LTD, KATHMANDU, NEPAL**

.....  
Submitted By  
Contract Manager  
Rabindra Kr. Thakur

Verified By  
Expert Qty Surveyor/CSE  
H.K. Mandal/Rajan Shrestha

Approved By  
Team Leader  
Gireesh Chand



| REGIONAL URBAN DEVELOPMENT PROJECT                                 |              |                |  |  |         |       |       |       |       |   |                   |                                    |       |             |         |      |
|--|--------------|----------------|--|--|---------|-------|-------|-------|-------|---|-------------------|------------------------------------|-------|-------------|---------|------|
| Biratnagar Metropolitan City                                       |              |                |  |  |         |       |       |       |       |   |                   |                                    |       |             |         |      |
| Contract No: RUDP/ICB/BRT-02                                       |              |                |  |  |         |       |       |       |       |   |                   |                                    |       |             |         |      |
| Test Result BY MARSHALL METHOD (AASHTO T 245-78)                   |              |                |  |  |         |       |       |       |       |   |                   |                                    |       |             |         |      |
| SUMMARY FOR THE MONTH OF October 2019                              |              |                |  |  |         |       |       |       |       |   |                   |                                    |       |             |         |      |
| S. No.   | LAB REF. No. | Date of Laying | Location of Work ch:                             | Mix Agg Gradation  |         |       |       |       |       | Bitumen Content From Extraction Test %      | Mix Density gm/cc | Air Voids %                        | VMA % | Stability N | Flow mm |      |
|  |              |                |  | % Passing Sieve Sizes mm   |         |       |       |       |       |   |                   |                                    |       |             |         |      |
|  |              |                |  | 20   | 16      | 9.5   | 4.75  | 2.36  | 0.6   | 0.075                                       |                   |                                    |       |             |         |      |
| 1  | 116          | 16/10/2019     | R-41(T3L11H),0+000 to 0+520                      | 100  | 100     | 77.10 | 56.43 | 35.12 | 16.78 | 6.71  | 5.68              | 3.01                               | 16.08 | 11546       | 2.33    |      |
| 2  | 117          | 17/10/2019     | T3L13F,T3L13H (0+000 to 0+050,0+000 to 0+068)    | 100  | 100     | 80.88 | 55.91 | 34.13 | 16.60 | 6.50  | 5.88              | 3.08                               | 16.56 | 11642       | 2.48    |      |
| 3  | 118          | 17/10/2019     | T3L12,T3L13K (0+000 to 0+050, 0+000 to 0+074)    | 100  | 100     | 80.06 | 55.14 | 36.37 | 18.03 | 7.42  | 5.70              | 3.08                               | 16.19 | 11631       | 2.35    |      |
| 4  | 119          | 17/10/2019     | R-107,0+000 to 0+174                             | 100  | 100     | 81.39 | 54.28 | 34.18 | 20.78 | 8.02  | 5.96              | 3.22                               | 16.82 | 11642       | 2.48    |      |
| 5  | 120          | 18/10/2019     | R-7(south of Neuro Chowk), 0+000 to 0+555        | 100  | 100     | 81.82 | 55.66 | 35.57 | 18.35 | 6.12  | 5.95              | 3.02                               | 16.63 | 11686       | 2.62    |      |
| 6  | 121          | 21/10/2019     | R-34,0+000 to 0+157                              | 100  | 100     | 82.09 | 56.22 | 36.93 | 19.98 | 8.10  | 5.65              | 3.386                              | 4.25  | 17.28       | 11576   | 2.38 |
| 7  | 122          | 21/10/2019     | R-9,(West of neuro) , 0+000 to 0+110             | 100  | 100     | 81.42 | 55.63 | 34.93 | 16.88 | 6.26  | 5.80              | 3.397                              | 3.57  | 17.01       | 11675   | 2.55 |
| 8  | 123          | 21/10/2019     | R-2, 0+600 to 0+730                              | 100  | 100     | 81.84 | 56.36 | 35.54 | 17.49 | 7.40  | 5.83              | 3.372                              | 4.52  | 17.90       | 11465   | 2.25 |
| 9  | 124          | 22/10/2019     | R-67,0+000 to 0+157                              | 100  | 100     | 81.44 | 55.57 | 34.57 | 16.57 | 7.85  | 5.70              | 3.383                              | 4.29  | 17.42       | 11199   | 2.32 |
| 10   | 125          | 22/10/2019     | T3L7A,0+000 to 0+155                             | 100  | 100     | 80.97 | 55.13 | 38.87 | 19.84 | 8.67  | 5.94              | 3.398                              | 3.34  | 17.11       | 11421   | 2.50 |
| 11   | 126          | 22/10/2019     | R-7(Hospital chowk),0+340 to 0+730 LHS           | 100  | 100     | 81.78 | 55.93 | 35.28 | 17.80 | 7.73  | 5.60              | 3.390                              | 4.12  | 16.35       | 11642   | 2.48 |
| 12   | 127          | 24/10/2019     | R-7(Hospital chowk),0+340 to 0+730 RHS           | 100  | 100     | 81.99 | 55.92 | 35.46 | 17.87 | 6.91  | 5.63              | 3.380                              | 4.49  | 17.45       | 11089   | 2.23 |
| 13   | 128          | 24/10/2019     | R-7(Sidarth chowk to neuro chowk),0+060 to 0+300 | 100  | 100     | 81.62 | 56.02 | 35.30 | 17.88 | 8.31  | 5.88              | 4.36                               | 17.86 | 11509       | 2.33    |      |
| 14   | 129          | 25/10/2019     | R-6(Balaju temple to neuro road) ,0+000 to 0+400 | 100  | 100     | 80.91 | 55.45 | 34.98 | 17.37 | 7.08  | 5.72              | 3.41                               | 16.71 | 11089       | 2.27    |      |
| Specifications   |              |                |  | 100  | 100-100 | 76-82 | 54-59 | 33-37 | 16-21 | 6 to 9                                      | 5.703             | Min2.358                           | 3-6%  | ≥ 15        | ≥ 8500  | 2-3  |
| Job Mix Tolerances from RUDP Specification Table 2.4-10            |              |                |  | ±5%  | Nil     | ±5%   | ±3%   | ±2%   | ±1%   | Nil   | ±0.3%             | For (25-51)mm Thickness W/C Course |       |             |         |      |
| REMARKS:   |              |                |  |  |         |       |       |       |       |   |                   |                                    |       |             |         |      |
| ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD     |              |                |  | Contractor   |         |       |       |       |       | Consultant                                  |                   |                                    |       |             |         |      |
| PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL |              |                |  | BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY |         |       |       |       |       |   |                   |                                    |       |             |         |      |
| Submitted By<br>Contract Manager<br>Rabindra Kr. Thakur            |              |                |  | Verified By<br>Expert City Surveyor/CSE<br>H.K. Mandal                   |         |       |       |       |       | Approved By<br>Team Leader<br>Gireesh Chand |                   |                                    |       |             |         |      |



## REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

## Summary Sheet of Mortar Test Report

|      |             |                |                |                    |                |                    | Month                 |           | October         |            | Type of<br>Grade |
|------|-------------|----------------|----------------|--------------------|----------------|--------------------|-----------------------|-----------|-----------------|------------|------------------|
|      |             |                |                |                    |                |                    | Year                  |           | 2019            |            |                  |
|      |             |                |                |                    |                |                    | Description of Sample |           | Brick Wall      |            |                  |
|      |             |                |                |                    |                |                    | Date of Testing       |           | Strength, N/mm2 |            |                  |
| S.N. | Location    | Lab<br>Ref.no. | Type of Cement | Brand of<br>Cement | Source of Sand | Date of<br>Casting | 7 Days                | 28 Days   | 7 Days          | 28<br>Days |                  |
| 1    | R-46        | MR-2239        | Saptakoshi     | OPC                | Chisang Khola  | 3-Sep-19           | 10-Sep-19             | 1-Oct-19  |                 | 9.22       | 7.5              |
| 2    | T3L10F      | MR-2240        | Saptakoshi     | OPC                | Chisang Khola  | 3-Sep-19           | 10-Sep-19             | 1-Oct-19  |                 | 8.94       | 7.5              |
| 3    | R-46        | MR-2241        | Saptakoshi     | OPC                | Chisang Khola  | 4-Sep-19           | 11-Sep-19             | 2-Oct-19  |                 | 8.66       | 7.5              |
| 4    | T3L7B       | MR-2242        | Saptakoshi     | OPC                | Chisang Khola  | 4-Sep-19           | 11-Sep-19             | 2-Oct-19  |                 | 9.22       | 7.5              |
| 5    | T2L19X      | MR-2243        | Saptakoshi     | OPC                | Chisang Khola  | 4-Sep-19           | 11-Sep-19             | 2-Oct-19  |                 | 8.80       | 7.5              |
| 6    | R-3(T3L5)   | MR-2244        | Saptakoshi     | OPC                | Chisang Khola  | 4-Sep-19           | 11-Sep-19             | 2-Oct-19  |                 | 8.80       | 7.5              |
| 7    | T3L10F      | MR-2245        | Saptakoshi     | OPC                | Chisang Khola  | 4-Sep-19           | 11-Sep-19             | 2-Oct-19  |                 | 9.36       | 7.5              |
| 8    | T3L7B       | MR-2246        | Shalimar Gold  | OPC                | Chisang Khola  | 5-Sep-19           | 12-Sep-19             | 3-Oct-19  |                 | 8.38       | 7.5              |
| 9    | T2L19H      | MR-2247        | Shalimar Gold  | OPC                | Chisang Khola  | 5-Sep-19           | 12-Sep-19             | 3-Oct-19  |                 | 8.66       | 7.5              |
| 10   | R-3(Telcom) | MR-2248        | Shalimar Gold  | OPC                | Chisang Khola  | 5-Sep-19           | 12-Sep-19             | 3-Oct-19  |                 | 7.96       | 7.5              |
| 11   | T2L19G      | MR-2249        | Shalimar Gold  | OPC                | Chisang Khola  | 5-Sep-19           | 12-Sep-19             | 3-Oct-19  |                 | 8.10       | 7.5              |
| 12   | R-46        | MR-2250        | Shalimar Gold  | OPC                | Chisang Khola  | 6-Sep-19           | 13-Sep-19             | 4-Oct-19  |                 | 8.24       | 7.5              |
| 13   | T2L19X      | MR-2251        | Shalimar Gold  | OPC                | Chisang Khola  | 7-Sep-19           | 14-Sep-19             | 5-Oct-19  |                 | 8.80       | 7.5              |
| 14   | T3L7B       | MR-2252        | Shalimar Gold  | OPC                | Chisang Khola  | 8-Sep-19           | 15-Sep-19             | 6-Oct-19  |                 | 8.94       | 7.5              |
| 15   | R-181A      | MR-2253        | Shalimar Gold  | OPC                | Chisang Khola  | 8-Sep-19           | 15-Sep-19             | 6-Oct-19  |                 | 7.55       | 7.5              |
| 16   | T3L7B       | MR-2254        | Shalimar Gold  | OPC                | Chisang Khola  | 9-Sep-19           | 16-Sep-19             | 7-Oct-19  |                 | 8.66       | 7.5              |
| 17   | T3L10F      | MR-2255        | Shalimar Gold  | OPC                | Chisang Khola  | 9-Sep-19           | 16-Sep-19             | 7-Oct-19  |                 | 7.96       | 7.5              |
| 18   | T2L19X      | MR-2256        | Shalimar Gold  | OPC                | Chisang Khola  | 9-Sep-19           | 16-Sep-19             | 7-Oct-19  |                 | 9.22       | 7.5              |
| 19   | T2L19X      | MR-2257        | Shalimar Gold  | OPC                | Chisang Khola  | 10-Sep-19          | 17-Sep-19             | 8-Oct-19  |                 | 9.36       | 7.5              |
| 20   | R-181A      | MR-2258        | Shalimar Gold  | OPC                | Chisang Khola  | 11-Sep-19          | 18-Sep-19             | 9-Oct-19  |                 | 7.96       | 7.5              |
| 21   | T2L19H      | MR-2259        | Shalimar Gold  | OPC                | Chisang Khola  | 12-Sep-19          | 19-Sep-19             | 10-Oct-19 |                 | 8.10       | 7.5              |
| 22   | R-3(Telcom) | MR-2260        | Shalimar Gold  | OPC                | Chisang Khola  | 12-Sep-19          | 19-Sep-19             | 10-Oct-19 |                 | 8.80       | 7.5              |
| 23   | T2L19H      | MR-2261        | Shalimar Gold  | OPC                | Chisang Khola  | 13-Sep-19          | 20-Sep-19             | 11-Oct-19 |                 | 7.55       | 7.5              |
| 24   | R-46        | MR-2262        | Shalimar Gold  | OPC                | Chisang Khola  | 14-Sep-19          | 21-Sep-19             | 12-Oct-19 |                 | 8.80       | 7.5              |
| 25   | R-3(Telcom) | MR-2263        | Shalimar Gold  | OPC                | Chisang Khola  | 14-Sep-19          | 21-Sep-19             | 12-Oct-19 |                 | 7.96       | 7.5              |
| 26   | T2L19H      | MR-2264        | Shalimar Gold  | OPC                | Chisang Khola  | 15-Sep-19          | 22-Sep-19             | 13-Oct-19 |                 | 7.96       | 7.5              |

**Contractor**  
**ZHONGHENG CONSTRUCTION GROUP**  
**INTERNATIONAL ENGINEERING CO. LTD**

**Consultant**  
**BUILDING DESIGN AUTHORITY (P) LTD IN JOINT**  
**VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS**  
**ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU,**  
**NEPAL**

Checked By  
 Engineer  
 Benu Shrestha

Submitted By  
 Contract Manager  
 Rabindra Kr. Thakur

Verified By  
 Expert Qty Surveyor/CSE  
 H.K. Mandal/Rajan Shrestha

Approved By  
 Team Leader  
 Gireesh Chand





## REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

## Summary Sheet of Mortar Test Report

|      |          |             |                |                 |                |                 | Month                 |           | October         |         |               |
|------|----------|-------------|----------------|-----------------|----------------|-----------------|-----------------------|-----------|-----------------|---------|---------------|
|      |          |             |                |                 |                |                 | Year                  |           | 2019            |         |               |
|      |          |             |                |                 |                |                 | Description of Sample |           | Brick Wall      |         |               |
| S.N. | Location | Lab Ref.no. | Type of Cement | Brand of Cement | Source of Sand | Date of Casting | Date of Testing       |           | Strength, N/mm2 |         | Type of Grade |
|      |          |             |                |                 |                |                 | 7 Days                | 28 Days   | 7 Days          | 28 Days |               |
| 27   | T2L19X   | MR-2265     | Shalimar Gold  | OPC             | Chisang Khola  | 16-Sep-19       | 23-Sep-19             | 14-Oct-19 |                 | 8.80    | 7.5           |
| 28   | T2L10A   | MR-2266     | Shalimar Gold  | OPC             | Chisang Khola  | 17-Sep-19       | 24-Sep-19             | 15-Oct-19 |                 | 8.94    | 7.5           |
| 29   | R-46     | MR-2267     | Shalimar Gold  | OPC             | Chisang Khola  | 17-Sep-19       | 24-Sep-19             | 15-Oct-19 |                 | 9.08    | 7.5           |
| 30   | N-38     | MR-2268     | Shalimar Gold  | OPC             | Chisang Khola  | 18-Sep-19       | 25-Sep-19             | 16-Oct-19 |                 | 9.08    | 7.5           |
| 31   | T3L7B    | MR-2269     | Shalimar Gold  | OPC             | Chisang Khola  | 18-Sep-19       | 25-Sep-19             | 16-Oct-19 |                 | 8.80    | 7.5           |
| 32   | T3L10F   | MR-2270     | Shalimar Gold  | OPC             | Chisang Khola  | 18-Sep-19       | 25-Sep-19             | 16-Oct-19 |                 | 8.66    | 7.5           |
| 33   | T2L19X   | MR-2271     | Shalimar Gold  | OPC             | Chisang Khola  | 20-Sep-19       | 27-Sep-19             | 18-Oct-19 |                 | 9.36    | 7.5           |
| 34   | T3L10F   | MR-2272     | Shalimar Gold  | OPC             | Chisang Khola  | 20-Sep-19       | 27-Sep-19             | 18-Oct-19 |                 | 9.08    | 7.5           |
| 35   | T2L24C   | MR-2273     | Shalimar Gold  | OPC             | Chisang Khola  | 20-Sep-19       | 27-Sep-19             | 18-Oct-19 |                 | 9.64    | 7.5           |
| 36   | T3L10A   | MR-2274     | Shalimar Gold  | OPC             | Chisang Khola  | 20-Sep-19       | 27-Sep-19             | 18-Oct-19 |                 | 8.24    | 7.5           |
| 37   | T3L13C   | MR-2275     | Shalimar Gold  | OPC             | Chisang Khola  | 21-Sep-19       | 28-Sep-19             | 19-Oct-19 |                 | 9.22    | 7.5           |
| 38   | T2L19H   | MR-2276     | Shalimar Gold  | OPC             | Chisang Khola  | 21-Sep-19       | 28-Sep-19             | 19-Oct-19 |                 | 8.52    | 7.5           |
| 39   | T3L13C   | MR-2277     | Shalimar Gold  | OPC             | Chisang Khola  | 21-Sep-19       | 28-Sep-19             | 19-Oct-19 |                 | 9.22    | 7.5           |
| 40   | T3L10F   | MR-2278     | Shalimar Gold  | OPC             | Chisang Khola  | 21-Sep-19       | 28-Sep-19             | 19-Oct-19 |                 | 8.24    | 7.5           |
| 41   | T3L7B    | MR-2279     | Shalimar Gold  | OPC             | Chisang Khola  | 21-Sep-19       | 28-Sep-19             | 19-Oct-19 |                 | 8.80    | 7.5           |
| 42   | T3L7C    | MR-2280     | Shalimar Gold  | OPC             | Chisang Khola  | 21-Sep-19       | 28-Sep-19             | 19-Oct-19 |                 | 7.69    | 7.5           |
| 43   | N-38     | MR-2281     | Shalimar Gold  | OPC             | Chisang Khola  | 22-Sep-19       | 29-Sep-19             | 20-Oct-19 |                 | 8.24    | 7.5           |
| 44   | T2L19H   | MR-2282     | Shalimar Gold  | OPC             | Chisang Khola  | 22-Sep-19       | 29-Sep-19             | 20-Oct-19 |                 | 9.36    | 7.5           |
| 45   | T3L7B    | MR-2283     | Shalimar Gold  | OPC             | Chisang Khola  | 22-Sep-19       | 29-Sep-19             | 20-Oct-19 |                 | 8.10    | 7.5           |
| 46   | T3L10A   | MR-2284     | Shalimar Gold  | OPC             | Chisang Khola  | 22-Sep-19       | 29-Sep-19             | 20-Oct-19 |                 | 8.66    | 7.5           |
| 47   | T3L10F   | MR-2285     | Shalimar Gold  | OPC             | Chisang Khola  | 22-Sep-19       | 29-Sep-19             | 20-Oct-19 |                 | 9.50    | 7.5           |
| 48   | T3L7B    | MR-2286     | Shalimar Gold  | OPC             | Chisang Khola  | 23-Sep-19       | 30-Sep-19             | 21-Oct-19 |                 | 8.52    | 7.5           |
| 49   | R-181A   | MR-2287     | Shalimar Gold  | OPC             | Chisang Khola  | 23-Sep-19       | 30-Sep-19             | 21-Oct-19 |                 | 8.38    | 7.5           |
| 50   | N-38     | MR-2288     | Shalimar Gold  | OPC             | Chisang Khola  | 23-Sep-19       | 30-Sep-19             | 21-Oct-19 |                 | 8.38    | 7.5           |
| 51   | R-181A   | MR-2289     | Shalimar Gold  | OPC             | Chisang Khola  | 23-Sep-19       | 30-Sep-19             | 21-Oct-19 |                 | 9.08    | 7.5           |
| 52   | T3L10F   | MR-2290     | Shalimar Gold  | OPC             | Chisang Khola  | 23-Sep-19       | 30-Sep-19             | 21-Oct-19 |                 | 8.66    | 7.5           |
| 53   | R-181A   | MR-2291     | Shalimar Gold  | OPC             | Chisang Khola  | 23-Sep-19       | 30-Sep-19             | 21-Oct-19 |                 | 7.96    | 7.5           |
| 54   | N-38     | MR-2292     | Shalimar Gold  | OPC             | Chisang Khola  | 23-Sep-19       | 30-Sep-19             | 21-Oct-19 |                 | 8.24    | 7.5           |
| 55   | N-38     | MR-2293     | Shalimar Gold  | OPC             | Chisang Khola  | 24-Sep-19       | 1-Oct-19              | 22-Oct-19 | 6.43            | 8.66    | 7.5           |
| 56   | R-3      | MR-2294     | Shalimar Gold  | OPC             | Chisang Khola  | 24-Sep-19       | 1-Oct-19              | 22-Oct-19 | 6.57            | 9.08    | 7.5           |
| 57   | R-8      | MR-2295     | Shalimar Gold  | OPC             | Chisang Khola  | 25-Sep-19       | 2-Oct-19              | 23-Oct-19 | 6.71            | 9.36    | 7.5           |
| 58   | R-3      | MR-2296     | Shalimar Gold  | OPC             | Chisang Khola  | 26-Sep-19       | 3-Oct-19              | 24-Oct-19 | 6.15            | 8.10    | 7.5           |

| Contractor  |   | Consultant   |   |
|---|---|--|---|
| ZHONGHENG CONSTRUCTION GROUP<br>INTERNATIONAL ENGINEERING CO. LTD |   | BUILDING DESIGN AUTHORITY (P) LTD IN JOINT<br>VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS<br>ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU,<br>NEPAL |   |
| Checked By<br>Engineer<br>Benu Shrestha                           | Submitted By<br>Contract Manager<br>Rabindra Kr. Thakur | Verified By<br>Expert Qty Surveyor/CSE<br>H.K. Mandal/Rajan Shrestha   | Approved By<br>Team Leader<br>Gireesh Chand |





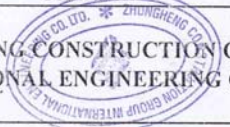


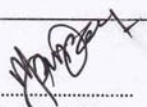

## REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Mortar Test Report

|                           |          |             |                |                 |                |                 | Month                 |           | October         |         |               |
|---------------------------|----------|-------------|----------------|-----------------|----------------|-----------------|-----------------------|-----------|-----------------|---------|---------------|
|                           |          |             |                |                 |                |                 | Year                  |           | 2019            |         |               |
|                           |          |             |                |                 |                |                 | Description of Sample |           | Brick Wall      |         |               |
| S.N.                      | Location | Lab Ref.no. | Type of Cement | Brand of Cement | Source of Sand | Date of Casting | Date of Testing       |           | Strength, N/mm2 |         | Type of Grade |
|                           |          |             |                |                 |                |                 | 7 Days                | 28 Days   | 7 Days          | 28 Days |               |
| 59                        | T3L10F   | MR-2297     | Shalimar Gold  | OPC             | Chisang Khola  | 27-Sep-19       | 4-Oct-19              | 25-Oct-19 | 5.73            | 7.69    | 7.5           |
| 60                        | T3L10C   | MR-2298     | Shalimar Gold  | OPC             | Chisang Khola  | 28-Sep-19       | 5-Oct-19              | 26-Oct-19 | 6.01            | 8.66    | 7.5           |
| 61                        | R-3      | MR-2299     | Shalimar Gold  | OPC             | Chisang Khola  | 29-Sep-19       | 6-Oct-19              | 27-Oct-19 | 6.85            | 7.83    | 7.5           |
| 62                        | R-8      | MR-2300     | Shalimar Gold  | OPC             | Chisang Khola  | 2-Oct-19        | 9-Oct-19              | 30-Oct-19 | 5.87            | 8.80    | 7.5           |
| 63                        | T3L10C   | MR-2301     | Shalimar Gold  | OPC             | Chisang Khola  | 3-Oct-19        | 10-Oct-19             | 31-Oct-19 | 6.01            | 8.80    | 7.5           |
| 64                        | T3L10C   | MR-2302     | Shalimar Gold  | OPC             | Chisang Khola  | 17-Oct-19       | 24-Oct-19             | 14-Nov-19 | 6.85            | ✓       | 7.5           |
| 65                        | R-8      | MR-2303     | Shalimar Gold  | OPC             | Chisang Khola  | 17-Oct-19       | 24-Oct-19             | 14-Nov-19 | 5.87            |         | 7.5           |
| 66                        | R-3      | MR-2304     | Shalimar Gold  | OPC             | Chisang Khola  | 19-Oct-19       | 26-Oct-19             | 16-Nov-19 | 6.85            |         | 7.5           |
| 67                        | T3L10C   | MR-2305     | Shalimar Gold  | OPC             | Chisang Khola  | 21-Oct-19       | 28-Oct-19             | 18-Nov-19 | 6.01            |         | 7.5           |
| 68                        | R-3      | MR-2306     | Shalimar Gold  | OPC             | Chisang Khola  | 21-Oct-19       | 28-Oct-19             | 18-Nov-19 | 6.85            |         | 7.5           |
| 69                        | R-8      | MR-2307     | Shalimar Gold  | OPC             | Chisang Khola  | 21-Oct-19       | 28-Oct-19             | 18-Nov-19 | 6.99            |         | 7.5           |
| 70                        | T3L10C   | MR-2308     | Shalimar Gold  | OPC             | Chisang Khola  | 22-Oct-19       | 29-Oct-19             | 19-Nov-19 | 5.87            |         | 7.5           |
| <div>↖</div> <div>↗</div> |          |             |                |                 |                |                 |                       |           |                 |         |               |
| 1                         |          |             |                |                 |                |                 |                       |           |                 |         |               |
| 2                         |          |             |                |                 |                |                 |                       |           |                 |         |               |
| 3                         |          |             |                |                 |                |                 |                       |           |                 |         |               |

| Contractor   |  | Consultant  |  |
|--|--|---|--|
| <br>ZHONGHENG CONSTRUCTION GROUP<br>INTERNATIONAL ENGINEERING CO. LTD |  | BUILDING DESIGN AUTHORITY (P) LTD IN JOINT<br>VENTURE WITH B.N. CONSULTANCY.PVT. LTD AND PLUS<br>ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU,<br>NEPAL        |  |
| <br>Checked By<br>Engineer<br>Benu Shrestha                           | <br>Submitted By<br>Contract Manager<br>Rabindra Kr. Thakur | <br>Verified By<br>Expert Qty Surveyor/CSE<br>H.K. Mandal/Rajan Shrestha | <br>Approved By<br>Team Leader<br>Giresch Chand |



## REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Concrete Cube Test Report

| S.N. | Location       | Lab Ref.no. | Type of Cement | Brand of Cement | Source of Sand+Agg. | Date of Casting | Month            |          | October         |         |
|------|----------------|-------------|----------------|-----------------|---------------------|-----------------|------------------|----------|-----------------|---------|
|      |                |             |                |                 |                     |                 | Year             |          | 2019            |         |
|      |                |             |                |                 |                     |                 | Type of Material |          | Conc. Cube      |         |
|      |                |             |                |                 |                     |                 | Date of Testing  |          | Strength, N/mm2 |         |
|      |                |             |                |                 |                     |                 | 7 Days           | 28 Days  | 7 Days          | 28 Days |
| 1    | R-4            | RUDP-2558   | Saptakoshi     | OPC             | Chisang Khola       | 3-Sep-19        | 10-Sep-19        | 1-Oct-19 | 23.06           | M20     |
| 2    | T2L10H         | RUDP-2559   | Saptakoshi     | OPC             | Chisang Khola       | 3-Sep-19        | 10-Sep-19        | 1-Oct-19 | 23.21           | M20     |
| 3    | T3L10F         | RUDP-2560   | Saptakoshi     | OPC             | Chisang Khola       | 3-Sep-19        | 10-Sep-19        | 1-Oct-19 | 22.58           | M20     |
| 4    | Madhumara-yard | RUDP-2561   | Saptakoshi     | OPC             | Chisang Khola       | 3-Sep-19        | 10-Sep-19        | 1-Oct-19 | 21.82           | M20     |
| 5    | T3L10H         | RUDP-2562   | Saptakoshi     | OPC             | Chisang Khola       | 3-Sep-19        | 10-Sep-19        | 1-Oct-19 | 22.75           | M20     |
| 6    | Judi-yard      | RUDP-2563   | Saptakoshi     | OPC             | Chisang Khola       | 3-Sep-19        | 10-Sep-19        | 1-Oct-19 | 22.21           | M20     |
| 7    | R181A          | RUDP-2564   | Saptakoshi     | OPC             | Chisang Khola       | 3-Sep-19        | 10-Sep-19        | 1-Oct-19 | 23.43           | M20     |
| 8    | T3L21          | RUDP-2565   | Saptakoshi     | OPC             | Chisang Khola       | 3-Sep-19        | 10-Sep-19        | 1-Oct-19 | 21.33           | M20     |
| 9    | T3L Trunk Line | RUDP-2566   | Saptakoshi     | OPC             | Chisang Khola       | 3-Sep-19        | 10-Sep-19        | 1-Oct-19 | 21.71           | M20     |
| 10   | R-2            | RUDP-2567   | Saptakoshi     | OPC             | Chisang Khola       | 3-Sep-19        | 10-Sep-19        | 1-Oct-19 | 23.80           | M20     |
| 11   | T3L10H         | RUDP-2568   | Saptakoshi     | OPC             | Chisang Khola       | 4-Sep-19        | 11-Sep-19        | 2-Oct-19 | 23.50           | M20     |
| 12   | R-3(T3L5)      | RUDP-2569   | Saptakoshi     | OPC             | Chisang Khola       | 4-Sep-19        | 11-Sep-19        | 2-Oct-19 | 23.80           | M20     |
| 13   | T3L10H         | RUDP-2570   | Saptakoshi     | OPC             | Chisang Khola       | 4-Sep-19        | 11-Sep-19        | 2-Oct-19 | 21.71           | M20     |
| 14   | Judi-yard      | RUDP-2571   | Saptakoshi     | OPC             | Chisang Khola       | 4-Sep-19        | 11-Sep-19        | 2-Oct-19 | 23.18           | M20     |
| 15   | R-3(Telecom)   | RUDP-2572   | Saptakoshi     | OPC             | Chisang Khola       | 4-Sep-19        | 11-Sep-19        | 2-Oct-19 | 21.58           | M20     |
| 16   | Madhumara-yard | RUDP-2573   | Saptakoshi     | OPC             | Chisang Khola       | 4-Sep-19        | 11-Sep-19        | 2-Oct-19 | 27.97           | M25     |
| 17   | R-4a           | RUDP-2574   | Saptakoshi     | OPC             | Chisang Khola       | 4-Sep-19        | 11-Sep-19        | 2-Oct-19 | 21.71           | M20     |
| 18   | T3L10F         | RUDP-2575   | Saptakoshi     | OPC             | Chisang Khola       | 4-Sep-19        | 11-Sep-19        | 2-Oct-19 | 23.18           | M20     |
| 19   | Judi-yard      | RUDP-2576   | Saptakoshi     | OPC             | Chisang Khola       | 4-Sep-19        | 11-Sep-19        | 2-Oct-19 | 23.43           | M20     |
| 20   | T3L13C         | RUDP-2577   | Saptakoshi     | OPC             | Chisang Khola       | 4-Sep-19        | 11-Sep-19        | 2-Oct-19 | 22.91           | M20     |
| 21   | Madhumara-yard | RUDP-2578   | Saptakoshi     | OPC             | Chisang Khola       | 5-Sep-19        | 12-Sep-19        | 3-Oct-19 | 26.25           | M25     |
| 22   | T3L13C         | RUDP-2579   | Saptakoshi     | OPC             | Chisang Khola       | 5-Sep-19        | 12-Sep-19        | 3-Oct-19 | 23.43           | M20     |
| 23   | T3L13C         | RUDP-2580   | Saptakoshi     | OPC             | Chisang Khola       | 6-Sep-19        | 13-Sep-19        | 4-Oct-19 | 22.40           | M20     |
| 24   | R-4            | RUDP-2581   | Saptakoshi     | OPC             | Chisang Khola       | 6-Sep-19        | 13-Sep-19        | 4-Oct-19 | 23.43           | M20     |
| 25   | R-12           | RUDP-2582   | Saptakoshi     | OPC             | Chisang Khola       | 6-Sep-19        | 13-Sep-19        | 4-Oct-19 | 21.48           | M20     |
| 26   | R-4b           | RUDP-2583   | Saptakoshi     | OPC             | Chisang Khola       | 6-Sep-19        | 13-Sep-19        | 4-Oct-19 | 23.43           | M20     |
| 27   | Judi-yard      | RUDP-2584   | Saptakoshi     | OPC             | Chisang Khola       | 6-Sep-19        | 13-Sep-19        | 4-Oct-19 | 21.81           | M20     |
| 28   | T3L10F         | RUDP-2585   | Saptakoshi     | OPC             | Chisang Khola       | 6-Sep-19        | 13-Sep-19        | 4-Oct-19 | 23.36           | M20     |
| 29   | T3L13C         | RUDP-2586   | Saptakoshi     | OPC             | Chisang Khola       | 7-Sep-19        | 14-Sep-19        | 5-Oct-19 | 22.66           | M20     |
| 30   | R-7            | RUDP-2587   | Saptakoshi     | OPC             | Chisang Khola       | 8-Sep-19        | 15-Sep-19        | 6-Oct-19 | 22.91           | M20     |
| 31   | T2L10H         | RUDP-2588   | Saptakoshi     | OPC             | Chisang Khola       | 8-Sep-19        | 15-Sep-19        | 6-Oct-19 | 23.43           | M20     |
| 32   | R-11           | RUDP-2589   | Saptakoshi     | OPC             | Chisang Khola       | 8-Sep-19        | 15-Sep-19        | 6-Oct-19 | 22.84           | M20     |
| 33   | Madhumara-yard | RUDP-2590   | Saptakoshi     | OPC             | Chisang Khola       | 8-Sep-19        | 15-Sep-19        | 6-Oct-19 | 27.46           | M25     |
| 34   | Madhumara-yard | RUDP-2591   | Saptakoshi     | OPC             | Chisang Khola       | 8-Sep-19        | 15-Sep-19        | 6-Oct-19 | 28.20           | M25     |
| 35   | R-4            | RUDP-2592   | Saptakoshi     | OPC             | Chisang Khola       | 8-Sep-19        | 15-Sep-19        | 6-Oct-19 | 16.47           | M15     |
| 36   | R-4            | RUDP-2593   | Saptakoshi     | OPC             | Chisang Khola       | 9-Sep-19        | 16-Sep-19        | 7-Oct-19 | 23.43           | M20     |
| 37   | R-2            | RUDP-2594   | Shalimar Gold  | OPC             | Chisang Khola       | 9-Sep-19        | 16-Sep-19        | 7-Oct-19 | 23.73           | M20     |
| 38   | T2L10A         | RUDP-2595   | Shalimar Gold  | OPC             | Chisang Khola       | 9-Sep-19        | 16-Sep-19        | 7-Oct-19 | 23.80           | M20     |
| 39   | T3L10F         | RUDP-2596   | Shalimar Gold  | OPC             | Chisang Khola       | 9-Sep-19        | 16-Sep-19        | 7-Oct-19 | 22.81           | M20     |
| 40   | T3L13C         | RUDP-2597   | Shalimar Gold  | OPC             | Chisang Khola       | 10-Sep-19       | 17-Sep-19        | 8-Oct-19 | 23.43           | M20     |

Contractor

Consultant

ZHONGHENG CONSTRUCTION GROUP  
INTERNATIONAL ENGINEERING CO. LTD

BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N.  
CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P)  
LTD, KATHMANDU, NEPAL

Checked By  
Engineer  
Benu Shrestha

Submitted By  
Contract Manager  
Rabindra K.Thakur

Verified By  
Expert Qty Surveyor/CSE  
H.K. Mandal/Rajan Shrestha

Approved By  
Team Leader  
Giresh Chand





## REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Concrete Cube Test Report

| S.N. | Location       | Lab Ref.no. | Type of Cement | Brand of Cement | Source of Sand+Agg. | Date of Casting | Month            |           | October                     |                |
|------|----------------|-------------|----------------|-----------------|---------------------|-----------------|------------------|-----------|-----------------------------|----------------|
|      |                |             |                |                 |                     |                 | Year             |           | 2019                        |                |
|      |                |             |                |                 |                     |                 | Type of Material |           | Conc. Cube                  |                |
|      |                |             |                |                 |                     |                 | Date of Testing  |           | Strength, N/mm <sup>2</sup> |                |
|      |                |             |                |                 |                     |                 | 7 Days           | 28 Days   | 7 Days                      | 28 Days        |
|      |                |             |                |                 |                     |                 |                  |           |                             | Concrete Grade |
| 41   | T2L19H         | RUDP-2598   | Shalimar Gold  | OPC             | Chisang Khola       | 10-Sep-19       | 17-Sep-19        | 8-Oct-19  | 22.99                       | M20            |
| 42   | T2L19G         | RUDP-2599   | Shalimar Gold  | OPC             | Chisang Khola       | 11-Sep-19       | 18-Sep-19        | 9-Oct-19  | 21.93                       | M20            |
| 43   | Judi Yard      | RUDP-2600   | Shalimar Gold  | OPC             | Chisang Khola       | 12-Sep-19       | 19-Sep-19        | 10-Oct-19 | 22.76                       | M20            |
| 44   | Judi Yard      | RUDP-2601   | Shalimar Gold  | OPC             | Chisang Khola       | 12-Sep-19       | 19-Sep-19        | 10-Oct-19 | 23.43                       | M20            |
| 45   | R-46           | RUDP-2602   | Shalimar Gold  | OPC             | Chisang Khola       | 12-Sep-19       | 19-Sep-19        | 10-Oct-19 | 23.28                       | M20            |
| 46   | T3L10A         | RUDP-2603   | Shalimar Gold  | OPC             | Chisang Khola       | 13-Sep-19       | 20-Sep-19        | 11-Oct-19 | 21.56                       | M20            |
| 47   | R-181A         | RUDP-2604   | Shalimar Gold  | OPC             | Chisang Khola       | 13-Sep-19       | 20-Sep-19        | 11-Oct-19 | 23.43                       | M20            |
| 48   | T3L13C         | RUDP-2605   | Shalimar Gold  | OPC             | Chisang Khola       | 13-Sep-19       | 20-Sep-19        | 11-Oct-19 | 23.58                       | M20            |
| 49   | T3L10F         | RUDP-2606   | Shalimar Gold  | OPC             | Chisang Khola       | 14-Sep-19       | 21-Sep-19        | 12-Oct-19 | 21.81                       | M20            |
| 50   | T3L13C         | RUDP-2607   | Shalimar Gold  | OPC             | Chisang Khola       | 14-Sep-19       | 21-Sep-19        | 12-Oct-19 | 22.91                       | M20            |
| 51   | T3L7B          | RUDP-2608   | Shalimar Gold  | OPC             | Chisang Khola       | 14-Sep-19       | 21-Sep-19        | 12-Oct-19 | 23.88                       | M20            |
| 52   | N-38           | RUDP-2609   | Shalimar Gold  | OPC             | Chisang Khola       | 14-Sep-19       | 21-Sep-19        | 12-Oct-19 | 22.84                       | M20            |
| 53   | N-38           | RUDP-2610   | Shalimar Gold  | OPC             | Chisang Khola       | 14-Sep-19       | 21-Sep-19        | 12-Oct-19 | 23.43                       | M20            |
| 54   | R-181A         | RUDP-2611   | Shalimar Gold  | OPC             | Chisang Khola       | 15-Sep-19       | 22-Sep-19        | 13-Oct-19 | 22.66                       | M20            |
| 55   | T3L7B          | RUDP-2612   | Shalimar Gold  | OPC             | Chisang Khola       | 15-Sep-19       | 22-Sep-19        | 13-Oct-19 | 23.73                       | M20            |
| 56   | T3L10F         | RUDP-2613   | Shalimar Gold  | OPC             | Chisang Khola       | 15-Sep-19       | 22-Sep-19        | 13-Oct-19 | 22.47                       | M20            |
| 57   | Madhumara yard | RUDP-2614   | Shalimar Gold  | OPC             | Chisang Khola       | 15-Sep-19       | 22-Sep-19        | 13-Oct-19 | 27.09                       | M25            |
| 58   | Madhumara yard | RUDP-2615   | Shalimar Gold  | OPC             | Chisang Khola       | 15-Sep-19       | 22-Sep-19        | 13-Oct-19 | 27.17                       | M25            |
| 59   | T3L10F         | RUDP-2616   | Shalimar Gold  | OPC             | Chisang Khola       | 15-Sep-19       | 22-Sep-19        | 13-Oct-19 | 23.43                       | M20            |
| 60   | T2L19H         | RUDP-2617   | Shalimar Gold  | OPC             | Chisang Khola       | 15-Sep-19       | 22-Sep-19        | 13-Oct-19 | 23.28                       | M20            |
| 61   | R-7            | RUDP-2618   | Shalimar Gold  | OPC             | Chisang Khola       | 15-Sep-19       | 22-Sep-19        | 13-Oct-19 | 23.06                       | M20            |
| 62   | R-42           | RUDP-2619   | Shalimar Gold  | OPC             | Chisang Khola       | 15-Sep-19       | 22-Sep-19        | 13-Oct-19 | 23.21                       | M20            |
| 63   | T3L10F         | RUDP-2620   | Shalimar Gold  | OPC             | Chisang Khola       | 16-Sep-19       | 23-Sep-19        | 14-Oct-19 | 22.91                       | M20            |
| 64   | R-4            | RUDP-2621   | Shalimar Gold  | OPC             | Chisang Khola       | 16-Sep-19       | 23-Sep-19        | 14-Oct-19 | 16.77                       | M15            |
| 65   | R-4            | RUDP-2622   | Shalimar Gold  | OPC             | Chisang Khola       | 17-Sep-19       | 24-Sep-19        | 15-Oct-19 | 22.81                       | M20            |
| 66   | T2L19H         | RUDP-2623   | Shalimar Gold  | OPC             | Chisang Khola       | 17-Sep-19       | 24-Sep-19        | 15-Oct-19 | 23.13                       | M20            |
| 67   | R-42           | RUDP-2624   | Shalimar Gold  | OPC             | Chisang Khola       | 17-Sep-19       | 24-Sep-19        | 15-Oct-19 | 21.71                       | M20            |
| 68   | T3L7B          | RUDP-2625   | Shalimar Gold  | OPC             | Chisang Khola       | 17-Sep-19       | 24-Sep-19        | 15-Oct-19 | 22.11                       | M20            |
| 69   | Judi Yard      | RUDP-2626   | Shalimar Gold  | OPC             | Chisang Khola       | 17-Sep-19       | 24-Sep-19        | 15-Oct-19 | 23.58                       | M20            |
| 70   | T2L10A         | RUDP-2627   | Shalimar Gold  | OPC             | Chisang Khola       | 17-Sep-19       | 24-Sep-19        | 15-Oct-19 | 23.43                       | M20            |
| 71   | R-181A         | RUDP-2628   | Shalimar Gold  | OPC             | Chisang Khola       | 18-Sep-19       | 25-Sep-19        | 16-Oct-19 | 21.63                       | M20            |
| 72   | T3L13C         | RUDP-2629   | Shalimar Gold  | OPC             | Chisang Khola       | 18-Sep-19       | 25-Sep-19        | 16-Oct-19 | 23.43                       | M20            |
| 73   | T3L7B          | RUDP-2630   | Shalimar Gold  | OPC             | Chisang Khola       | 18-Sep-19       | 25-Sep-19        | 16-Oct-19 | 21.78                       | M20            |
| 74   | Judi Yard      | RUDP-2631   | Shalimar Gold  | OPC             | Chisang Khola       | 18-Sep-19       | 25-Sep-19        | 16-Oct-19 | 23.80                       | M20            |
| 75   | R-3(T3L38)     | RUDP-2632   | Shalimar Gold  | OPC             | Chisang Khola       | 19-Sep-19       | 26-Sep-19        | 17-Oct-19 | 27.16                       | M25            |
| 76   | T2L19G         | RUDP-2633   | Shalimar Gold  | OPC             | Chisang Khola       | 19-Sep-19       | 26-Sep-19        | 17-Oct-19 | 21.73                       | M20            |
| 77   | R-7            | RUDP-2634   | Shalimar Gold  | OPC             | Chisang Khola       | 19-Sep-19       | 26-Sep-19        | 17-Oct-19 | 21.73                       | M20            |
| 78   | R-4            | RUDP-2635   | Shalimar Gold  | OPC             | Chisang Khola       | 19-Sep-19       | 26-Sep-19        | 17-Oct-19 | 16.10                       | M15            |
| 79   | R-4            | RUDP-2636   | Shalimar Gold  | OPC             | Chisang Khola       | 19-Sep-19       | 26-Sep-19        | 17-Oct-19 | 17.38                       | M15            |
| 80   | T2L19G         | RUDP-2637   | Shalimar Gold  | OPC             | Chisang Khola       | 19-Sep-19       | 26-Sep-19        | 17-Oct-19 | 23.50                       | M20            |
| 81   | Madhumara yard | RUDP-2638   | Shalimar Gold  | OPC             | Chisang Khola       | 19-Sep-19       | 26-Sep-19        | 17-Oct-19 | 28.43                       | M25            |
| 82   | T3L7B          | RUDP-2639   | Shalimar Gold  | OPC             | Chisang Khola       | 20-Sep-19       | 27-Sep-19        | 18-Oct-19 | 24.39                       | M20            |
| 83   | Judi Yard      | RUDP-2640   | Shalimar Gold  | OPC             | Chisang Khola       | 20-Sep-19       | 27-Sep-19        | 18-Oct-19 | 21.71                       | M20            |
| 84   | T3L7A          | RUDP-2641   | Shalimar Gold  | OPC             | Chisang Khola       | 20-Sep-19       | 27-Sep-19        | 18-Oct-19 | 23.43                       | M20            |
| 85   | Madhumara yard | RUDP-2642   | Shalimar Gold  | OPC             | Chisang Khola       | 20-Sep-19       | 27-Sep-19        | 18-Oct-19 | 28.20                       | M25            |
| 86   | T3L10F         | RUDP-2643   | Shalimar Gold  | OPC             | Chisang Khola       | 20-Sep-19       | 27-Sep-19        | 18-Oct-19 | 23.50                       | M20            |
| 87   | R-4            | RUDP-2644   | Shalimar Gold  | OPC             | Chisang Khola       | 21-Sep-19       | 28-Sep-19        | 19-Oct-19 | 23.36                       | M20            |

Contractor  
ZHONGHENG CONSTRUCTION GROUP  
INTERNATIONAL ENGINEERING CO. LTD

Consultant  
BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N.  
CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P)  
LTD, KATHIMANDU, NEPAL

Checked By  
Engineer  
Benu Shrestha

Submitted By  
Contract Manager  
Rabindra K. Thakur

Verified By  
Expert Qty Surveyor/CSE  
H.K. Mandal/Rajan Shrestha

Approved By  
Team Leader  
Giresh Chand





## REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Concrete Cube Test Report

|      |                |             |                |                 |                     |                 | Month            |           | October         |         |                |
|------|----------------|-------------|----------------|-----------------|---------------------|-----------------|------------------|-----------|-----------------|---------|----------------|
|      |                |             |                |                 |                     |                 | Year             |           | 2019            |         |                |
|      |                |             |                |                 |                     |                 | Type of Material |           | Conc. Cube      |         |                |
| S.N. | Location       | Lab Ref.no. | Type of Cement | Brand of Cement | Source of Sand+Agg. | Date of Casting | Date of Testing  |           | Strength, N/mm2 |         | Concrete Grade |
|      |                |             |                |                 |                     |                 | 7 Days           | 28 Days   | 7 Days          | 28 Days |                |
| 88   | T3L10F         | RUDP-2645   | Shalimar Gold  | OPC             | Chisang Khola       | 22-Sep-19       | 29-Sep-19        | 20-Oct-19 |                 | 23.36   | M20            |
| 89   | N-38           | RUDP-2646   | Shalimar Gold  | OPC             | Chisang Khola       | 22-Sep-19       | 29-Sep-19        | 20-Oct-19 |                 | 23.73   | M20            |
| 90   | R-46(T2L24C)   | RUDP-2647   | Shalimar Gold  | OPC             | Chisang Khola       | 22-Sep-19       | 29-Sep-19        | 20-Oct-19 |                 | 23.36   | M20            |
| 91   | N-38           | RUDP-2648   | Shalimar Gold  | OPC             | Chisang Khola       | 23-Sep-19       | 30-Sep-19        | 21-Oct-19 |                 | 21.71   | M20            |
| 92   | Judi yard      | RUDP-2649   | Shalimar Gold  | OPC             | Chisang Khola       | 23-Sep-19       | 30-Sep-19        | 21-Oct-19 |                 | 22.51   | M20            |
| 93   | R-2            | RUDP-2650   | Shalimar Gold  | OPC             | Chisang Khola       | 24-Sep-19       | 1-Oct-19         | 22-Oct-19 | 17.21           | 23.26   | M20            |
| 94   | R-8            | RUDP-2651   | Shalimar Gold  | OPC             | Chisang Khola       | 24-Sep-19       | 1-Oct-19         | 22-Oct-19 | 15.43           | 21.62   | M20            |
| 95   | Madhumara-yard | RUDP-2652   | Shalimar Gold  | OPC             | Chisang Khola       | 25-Sep-19       | 2-Oct-19         | 23-Oct-19 | 17.51           | 27.34   | M25            |
| 96   | R-7            | RUDP-2653   | Shalimar Gold  | OPC             | Chisang Khola       | 26-Sep-19       | 3-Oct-19         | 24-Oct-19 | 15.80           | 23.33   | M20            |
| 97   | Judi yard      | RUDP-2654   | Shalimar Gold  | OPC             | Chisang Khola       | 26-Sep-19       | 3-Oct-19         | 24-Oct-19 | 16.77           | 22.26   | M20            |
| 98   | T3L10F         | RUDP-2655   | Shalimar Gold  | OPC             | Chisang Khola       | 27-Sep-19       | 4-Oct-19         | 25-Oct-19 | 14.83           | 21.44   | M20            |
| 99   | R-4            | RUDP-2656   | Shalimar Gold  | OPC             | Chisang Khola       | 28-Sep-19       | 5-Oct-19         | 26-Oct-19 | 11.64           | 16.95   | M15            |
| 100  | R-8            | RUDP-2657   | Shalimar Gold  | OPC             | Chisang Khola       | 29-Sep-19       | 6-Oct-19         | 27-Oct-19 | 15.87           | 21.48   | M20            |
| 101  | R-4            | RUDP-2658   | Shalimar Gold  | OPC             | Chisang Khola       | 30-Sep-19       | 7-Oct-19         | 28-Oct-19 | 15.43           | 21.48   | M20            |
| 102  | R-3 (Telecom)  | RUDP-2659   | Shalimar Gold  | OPC             | Chisang Khola       | 1-Oct-19        | 8-Oct-19         | 29-Oct-19 | 16.32           | 22.91   | M20            |
| 103  | R-9            | RUDP-2660   | Shalimar Gold  | OPC             | Chisang Khola       | 2-Oct-19        | 9-Oct-19         | 30-Oct-19 | 15.87           | 21.73   | M20            |
| 104  | R-8            | RUDP-2661   | Shalimar Gold  | OPC             | Chisang Khola       | 2-Oct-19        | 9-Oct-19         | 30-Oct-19 | 16.77           | 22.91   | M20            |
| 105  | R-4            | RUDP-2662   | Shalimar Gold  | OPC             | Chisang Khola       | 3-Oct-19        | 10-Oct-19        | 31-Oct-19 | 16.77           | 21.58   | M20            |
| 106  | R-3 (Telecom)  | RUDP-2663   | Shalimar Gold  | OPC             | Chisang Khola       | 4-Oct-19        | 11-Oct-19        | 1-Nov-19  | 15.87           |         | M20            |
| 107  | R-2            | RUDP-2664   | Shalimar Gold  | OPC             | Chisang Khola       | 4-Oct-19        | 11-Oct-19        | 1-Nov-19  | 15.43           |         | M20            |
| 108  | Judi yard      | RUDP-2665   | Shalimar Gold  | OPC             | Chisang Khola       | 4-Oct-19        | 11-Oct-19        | 1-Nov-19  | 17.21           |         | M20            |
| 109  | R-4            | RUDP-2666   | Shalimar Gold  | OPC             | Chisang Khola       | 5-Oct-19        | 12-Oct-19        | 2-Nov-19  | 11.49           |         | M15            |
| 110  | R-8            | RUDP-2667   | Shalimar Gold  | OPC             | Chisang Khola       | 5-Oct-19        | 12-Oct-19        | 2-Nov-19  | 15.80           |         | M20            |
| 111  | Madhumara-yard | RUDP-2668   | Shalimar Gold  | OPC             | Chisang Khola       | 15-Oct-19       | 22-Oct-19        | 12-Nov-19 | 17.21           |         | M25            |
| 112  | Madhumara-yard | RUDP-2669   | Shalimar Gold  | OPC             | Chisang Khola       | 15-Oct-19       | 22-Oct-19        | 12-Nov-19 | 18.05           |         | M25            |
| 113  | R-4            | RUDP-2670   | Shalimar Gold  | OPC             | Chisang Khola       | 16-Oct-19       | 23-Oct-19        | 13-Nov-19 | 17.36           |         | M20            |
| 114  | T3L10C         | RUDP-2671   | Shalimar Gold  | OPC             | Chisang Khola       | 16-Oct-19       | 23-Oct-19        | 13-Nov-19 | 14.38           |         | M20            |
| 115  | R-8            | RUDP-2672   | Shalimar Gold  | OPC             | Chisang Khola       | 17-Oct-19       | 24-Oct-19        | 14-Nov-19 | 15.43           |         | M20            |
| 116  | R-41           | RUDP-2673   | Shalimar Gold  | OPC             | Chisang Khola       | 17-Oct-19       | 24-Oct-19        | 14-Nov-19 | 16.02           |         | M20            |
| 117  | R-7            | RUDP-2674   | Shalimar Gold  | OPC             | Chisang Khola       | 18-Oct-19       | 25-Oct-19        | 15-Nov-19 | 15.13           |         | M20            |
| 118  | R-6            | RUDP-2675   | Shalimar Gold  | OPC             | Chisang Khola       | 19-Oct-19       | 26-Oct-19        | 16-Nov-19 | 15.87           |         | M20            |
| 119  | Judi yard      | RUDP-2676   | Shalimar Gold  | OPC             | Chisang Khola       | 19-Oct-19       | 26-Oct-19        | 16-Nov-19 | 14.38           |         | M20            |
| 120  | R-4            | RUDP-2677   | Shalimar Gold  | OPC             | Chisang Khola       | 19-Oct-19       | 26-Oct-19        | 16-Nov-19 | 15.87           |         | M20            |
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ZHONGHENG CONSTRUCTION GROUP  
INTERNATIONAL ENGINEERING CO. LTD

BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N.  
CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P)  
LTD, KATHMANDU, NEPAL

Checked By  
Engineer  
Benu Shrestha

Submitted By  
Contract Manager  
Rabindra K.Thakur

Verified By  
Expert Qty Surveyor/CSE  
H.K. Mandal/Rajan Shrestha

Approved By  
Team Leader  
Giresh Chand



## Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

## SUMMARY SHEET OF CEMENT TEST

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Comments:-

Consultant

**BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N.  
CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD,  
KATHMANDU, NEPAL**

ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL  
ENGINEERING CO., LTD.

Checked By  
Engineer  
Benu Shrestha

Submitted By  
Contract Manager  
Rabindra Kr. Thakur

Export Qty Surveyor/CSE  
H.K. Mandal/Rajan Shrestha

Approved By  
Team Leader  
Gireesh Chand



## Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

## Summary Sheet of Monthly Test Report of Concrete Sand

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## ANNEX-4: SOCIAL & ENVIRONMENT SAFEGUARD

### **Monitoring Formats Attached – October 2019**





**Regional Urban Development Project (RUDP)**  
**Project Implementation Unit (PIU)**  
**Biratnagar, Nepal**  
**LABOUR DATA SUMMARY**

| LABOUR CLASSIFICATION | LABOUR    |            | COMPOSITION |          | ETHNIC COMPOSITION |           |           |            |                 |
|-----------------------|-----------|------------|-------------|----------|--------------------|-----------|-----------|------------|-----------------|
|                       | SKILLED   | UNSKILLED  | MALE        | FEMALE   | JANJATI            | DALIT     | MUSLIM    | MADHESI    | BRAHMIN/CHHETRI |
| LOCAL                 | 19        | 38         | 57          | 0        | 2                  | 6         | 0         | 49         | 0               |
| NON LOCAL             | 46        | 143        | 189         | 0        | 70                 | 22        | 9         | 88         | 0               |
| INDIAN                | 8         | 22         | 30          | 0        | 0                  | 0         | 8         | 22         | 0               |
| <b>TOTAL</b>          | <b>73</b> | <b>203</b> | <b>276</b>  | <b>0</b> | <b>72</b>          | <b>28</b> | <b>17</b> | <b>159</b> | <b>0</b>        |



| Regional Urban Development Project (RUDP)<br>Project Implementation Unit (PIU)<br>Biratnagar, Nepal<br>LABOUR DATA |                   |                          |                  |                |             |      |        |                    |       |   |        |         |                 | Month/Year: At Oct. 2019 |  |
|--|-------------------|--------------------------|------------------|----------------|-------------|------|--------|--------------------|-------|---|--------|---------|-----------------|--------------------------|--|
| S.NO   | LOCATION          | TYPES OF WORK            | TYPES OF WORKERS | LABOUR SKILLED | COMPOSITION |      |        | ETHNIC COMPOSITION |       |   | MUSLIM | MADHESI | BRAHMIN/CHHETRI |                          |  |
|  |                   |                          |                  |                | UNSKILLED   | MALE | FEMALE | JANJATI            | DALIT |   |        |         |                 |                          |  |
| 1  | Kalika yard+D.D.C | Production               | LOCAL            |                |             |      |        |                    |       |   |        |         |                 |                          |  |
|  |                   |                          | NON LOCAL        | 12             | 40          | 52   | 0      | 30                 | 5     |   | 12     | 0       |                 |                          |  |
|  |                   |                          | INDIAN           |                |             |      |        |                    |       |   |        |         |                 |                          |  |
|  |                   |                          | TOTAL            | 52             |             |      |        |                    |       |   |        |         |                 |                          |  |
| 2  | Madhumara Yard    | Production               | LOCAL            |                |             |      |        |                    |       |   |        |         |                 |                          |  |
|  |                   |                          | NON LOCAL        | 8              | 33          | 41   | 0      | 10                 | 8     | 0 | 23     |         |                 |                          |  |
|  |                   |                          | INDIAN           |                |             |      |        |                    |       |   |        |         |                 |                          |  |
|  |                   |                          | TOTAL            | 41             |             |      |        |                    |       |   |        |         |                 |                          |  |
| 3  | R7                | Weep Whole               | LOCAL            | 3              | 6           | 9    | 0      | 0                  | 0     | 0 | 9      |         |                 |                          |  |
|  |                   |                          | NON LOCAL        |                |             |      |        |                    |       |   |        |         |                 |                          |  |
|  |                   |                          | INDIAN           |                |             |      |        |                    |       |   |        |         |                 |                          |  |
|  |                   |                          | TOTAL            | 9              |             |      |        |                    |       |   |        |         |                 |                          |  |
| 4  | R9                | Prime                    | LOCAL            |                |             |      |        |                    |       |   |        |         |                 |                          |  |
|  |                   |                          | NON LOCAL        | 3              | 8           | 11   | 0      | 4                  | 0     | 0 | 7      | 0       |                 |                          |  |
|  |                   |                          | INDIAN           |                |             |      |        |                    |       |   |        |         |                 |                          |  |
|  |                   |                          | TOTAL            | 11             |             |      |        |                    |       |   |        |         |                 |                          |  |
| 5  | R2                | House connection Group A | LOCAL            | 4              | 9           | 13   | 0      | 0                  | 6     | 0 | 7      | 0       |                 |                          |  |
|  |                   |                          | NON LOCAL        |                |             |      |        |                    |       |   |        |         |                 |                          |  |
|  |                   |                          | INDIAN           |                |             |      |        |                    |       |   |        |         |                 |                          |  |
|  |                   |                          | TOTAL            | 13             |             |      |        |                    |       |   |        |         |                 |                          |  |
| 6  | R2                | House connection Group B | LOCAL            | 5              | 9           | 14   | 0      | 0                  | 0     | 0 | 14     | 0       |                 |                          |  |
|  |                   |                          | NON LOCAL        |                |             |      |        |                    |       |   |        |         |                 |                          |  |
|  |                   |                          | INDIAN           |                |             |      |        |                    |       |   |        |         |                 |                          |  |
|  |                   |                          | TOTAL            | 14             |             |      |        |                    |       |   |        |         |                 |                          |  |
| 7  | R84               | House connection Group C | LOCAL            | 3              | 6           | 9    | 0      | 2                  | 0     | 0 | 7      | 0       |                 |                          |  |
|  |                   |                          | NON LOCAL        |                |             |      |        |                    |       |   |        |         |                 |                          |  |
|  |                   |                          | INDIAN           |                |             |      |        |                    |       |   |        |         |                 |                          |  |
|  |                   |                          | TOTAL            | 9              |             |      |        |                    |       |   |        |         |                 |                          |  |



| Regional Urban Development Project (RUDP)<br>Project Implementation Unit (PIU)<br>Biratnagar, Nepal<br>LABOUR DATA |      |             |           |    |    |    |   |   |   |   |    |   |  | Month/Year: At Oct. 2019 |  |
|--|------|-------------|-----------|----|----|----|---|---|---|---|----|---|--|--------------------------|--|
|  |      |             |           |    |    |    |   |   |   |   |    |   |  |                          |  |
| 8  | R2   | Electrical  | LOCAL     | 5  | 10 | 15 | 0 | 4 | 5 | 0 | 6  | 0 |  |                          |  |
|  |      |             | NON LOCAL |    |    |    |   |   |   |   |    |   |  |                          |  |
|  |      |             | INDIAN    |    |    |    |   |   |   |   |    |   |  |                          |  |
|  |      |             | TOTAL     | 15 |    |    |   |   |   |   |    |   |  |                          |  |
| 9  | R2   | M.H. Rise   | LOCAL     | 2  | 3  | 5  | 0 | 0 | 0 | 0 | 5  | 0 |  |                          |  |
|  |      |             | NON LOCAL |    |    |    |   |   |   |   |    |   |  |                          |  |
|  |      |             | INDIAN    |    |    |    |   |   |   |   |    |   |  |                          |  |
|  |      |             | TOTAL     | 5  |    |    |   |   |   |   |    |   |  |                          |  |
| 10   | R44  | Drain       | LOCAL     |    |    |    |   |   |   |   |    |   |  |                          |  |
|  |      |             | NON LOCAL | 5  | 11 | 16 | 0 | 4 | 4 | 0 | 8  | 0 |  |                          |  |
|  |      |             | INDIAN    |    |    |    |   |   |   |   |    |   |  |                          |  |
|  |      |             | TOTAL     | 16 |    |    |   |   |   |   |    |   |  |                          |  |
| 11   | R8   | Drain       | LOCAL     |    |    |    |   |   |   |   |    |   |  |                          |  |
|  |      |             | NON LOCAL | 4  | 14 | 18 | 0 | 0 | 0 | 0 | 18 | 0 |  |                          |  |
|  |      |             | INDIAN    |    |    |    |   |   |   |   |    |   |  |                          |  |
|  |      |             | TOTAL     | 18 |    |    |   |   |   |   |    |   |  |                          |  |
| 12   | R3   | Drain       | LOCAL     |    |    |    |   |   |   |   |    |   |  |                          |  |
|  |      |             | NON LOCAL | 3  | 10 | 13 | 0 | 3 | 0 | 0 | 10 | 0 |  |                          |  |
|  |      |             | INDIAN    |    |    |    |   |   |   |   |    |   |  |                          |  |
|  |      |             | TOTAL     | 13 |    |    |   |   |   |   |    |   |  |                          |  |
| 13   | T3L5 | Sewer inlet | LOCAL     | 2  | 5  | 7  | 0 | 0 | 0 | 0 | 7  | 0 |  |                          |  |
|  |      |             | NON LOCAL |    |    |    |   |   |   |   |    |   |  |                          |  |
|  |      |             | INDIAN    |    |    |    |   |   |   |   |    |   |  |                          |  |
|  |      |             | TOTAL     | 7  |    |    |   |   |   |   |    |   |  |                          |  |
| 14   | R7   | Base final  | LOCAL     |    |    |    |   |   |   |   |    |   |  |                          |  |
|  |      |             | NON LOCAL | 3  | 7  | 10 | 0 | 0 | 0 | 0 | 6  | 0 |  |                          |  |
|  |      |             | INDIAN    |    |    |    |   |   |   |   |    |   |  |                          |  |
|  |      |             | TOTAL     | 10 |    |    |   |   |   |   |    |   |  |                          |  |





| Regional Urban Development Project (RUDP)<br>Project Implementation Unit (PIU)<br>Biratnagar, Nepal<br>LABOUR DATA |        |         |           |    |    |    |   |    |   |   |    |   | Month/Year: At Oct. 2019 |
|--|--------|---------|-----------|----|----|----|---|----|---|---|----|---|--------------------------|
| 15   | R2     | Asphalt | LOCAL     |    |    |    |   |    |   |   |    |   |                          |
|  |        |         | NON LOCAL |    |    |    |   |    |   |   |    |   |                          |
|  |        |         | INDIAN    | 4  | 8  | 12 | 0 | 0  | 0 | 8 | 4  | 0 |                          |
|  |        |         | TOTAL     | 12 |    |    |   |    |   |   |    |   |                          |
| 16   | T3L10F | Drain   | LOCAL     |    |    |    |   |    |   |   |    |   |                          |
|  |        |         | NON LOCAL | 3  | 12 | 15 | 0 | 5  | 0 | 0 | 10 | 0 |                          |
|  |        |         | INDIAN    |    |    |    |   |    |   |   |    |   |                          |
|  |        |         | TOTAL     | 15 |    |    |   |    |   |   |    |   |                          |
| 17   | R3     | Tiles   | LOCAL     |    |    |    |   |    |   |   |    |   |                          |
|  |        |         | NON LOCAL | 4  | 12 | 16 | 0 | 10 | 0 | 0 | 6  | 0 |                          |
|  |        |         | INDIAN    |    |    |    |   |    |   |   |    |   |                          |
|  |        |         | TOTAL     | 16 |    |    |   |    |   |   |    |   |                          |



**Environmental Monitoring Format**  
Regional Urban Development Project (RUDP)/Biratnagar


Name of Sub Project: RUDP/ Biratnagar

Contract Package: RUDP/ICB/BRT/02

Sub-project Component: - Road Lanes Improvement / Sewerage Drainage

Month: Oct. 2019

**Checklist**

| SN       | Activity  | Description/Present Status<br>(Compliance/Partially Compliance/Non Compliance) | Remarks/ Corrective actions for Non-Compliance  |
|----------|---|--|---|
| <b>1</b> | <b>Training</b>   |  |   |
| 1.1      | Health, Safety and EMP trainings and awareness  | Yes  |   |
| 1.2      | Others awareness and skill trainings  | No   |   |
| <b>2</b> | <b>Occupational health and safety</b>   |  |   |
| 2.1      | Insurance for workers   | Yes  |   |
| 2.2      | Personal Protective Equipment (PPE) provided to labors and is using (helmet, facemasks, muffles, gloves, boots, jacket, goggles etc.) | Daily Provided   |   |
| 2.3      | Public notification Safety and warning signs and informative signboards in working sites for work safety                              | Yes Provided   |   |
| 2.4      | Use of barricades, caution tape and flag  | Daily Used   |   |
| <b>3</b> | <b>Campsite management</b>  |  |   |
| 3.1      | Location  | Pichra, Judi, Shanti Chowk, Rani   |   |
| 3.2      | First aid facilities available at camp and worksites  | Yes  |   |
| 3.3      | Drinking water supply and sanitation facilities/ pit latrines   | Tap water/ Hand Pump   |   |
| 3.4      | Waste Disposal and Management facilities  | Yes  |   |
| 3.5      | Type of fuel used for cooking   | L.P.G  |   |
| <b>4</b> | <b>Spoil and Construction material Management</b>   |  |   |
| 4.1      | Cut and fill balance maintained or not, Reuse of spoil materials  | Cut & Fill balance maintained  |  |
| 4.2      | Use of safe spoil disposal locations  | Not Applicable   |   |
| 4.3      | Disturbance to Pedestrian and traffic movement  | No any disturbance to pedestrians & traffic                                    |   |



|           |  |  |  |
|-----------|--|--|--|
| 4.4       | Use of private land and agreement with land owners   | movement<br>Yes                          |  |
| <b>5</b>  | <b>Air, Noise and Water Pollution</b>  |  |  |
| 5.1       | Dust emission and Noise pollution sites  | Water sprinkled by tanker on such sites. |  |
| 5.2       | Water quality monitoring result and locations  | ok                                       |  |
| 5.3       | Block age of natural drainages ,water logging, drain water discharge into farmland/risky areas | Not Applicable                           |  |
| <b>6</b>  | <b>Quarrying of construction materials and Plants Installment</b>                              |  |  |
| 6.1       | Quarry/borrow operation sites  | Not Applicable                           |  |
| 6.2       | Crusher plant and Asphalt plant operation restoration  | Asphalt Plant                            |  |
| <b>7</b>  | <b>Impact/Disruption of Private properties</b>   |  |  |
| 7.1       | Building structures  | Not Applicable                           |  |
| 7.2       | Other utilities  | Not Applicable                           |  |
| <b>8</b>  | <b>Impact/disruption of public infrastructures</b>   |  |  |
| 8.1       | Irrigation canal   | Not Applicable                           |  |
| 8.2       | Water supply pipe  | Not Applicable                           |  |
| 8.3       | Access road  | Not Applicable                           |  |
| 8.4       | Electric/Telephone pole  | Not Applicable                           |  |
| 8.5       | Others   | Not Applicable                           |  |
| <b>9</b>  | <b>Sites for cultural and religious values</b>   |  |  |
| 9.1       | Cultural and religious sensitive spots (if any)  | Not Applicable                           |  |
| <b>10</b> | <b>Forest and vegetation</b>   |  |  |
| 10.1      | Number of trees removal  | 00                                       |  |
| 10.2      | No of tree plantation (Roadside)   | Not Applicable                           |  |
| <b>11</b> | <b>Accident cases and records</b>  | No any records                           |  |
| <b>12</b> | <b>Employment to local people</b>  |  |  |
| 12.1      | Men and women  | Yes, both men and women                  |  |
| 12.2      | Child labor (if any)   | No                                       |  |
| <b>13</b> | <b>Establishment of Safeguard desk and meeting</b>   | Yes                                      |  |
| <b>14</b> | <b>Grievances from local people and addressed</b>  | Yes                                      |  |



**Regional Urban Development Project (RUDP)**  
**Social Safeguard Monitoring**  
**Status of Key Social Issues Compliance**

Subproject Road : -RUDP/ICB/BRT/2

Month/Year: Oct. 2019

Name of Contractor :-ZHONGGHENG Construction  
 GroupInternational Engineering Co pvt Beijing China.

Contract Package: RUDP/ICB/BRT/2

| S.N | Key Social Issue                                   | Compliance Status |         |      | Implementing Agency | Note of Remarks | Deadline |
|-----|--|-------------------|---------|------|---------------------|-----------------|----------|
|     |  | Full              | Partial | None |                     |                 |          |
| 1   | Availability of drinking water services            | √                 |         |      |                     |                 |          |
| 2   | Availability of toilet facility in campsite        | √                 |         |      |                     |                 |          |
| 3   | Legal source of fuel wood use                      |                   |         | √    |                     |                 |          |
| 4   | Legal document of fuel wood source                 |                   |         | √    |                     |                 |          |
| 5   | Use of safety accessories                          | √                 |         |      |                     |                 |          |
| 6   | Availability of first aid facility                 | √                 |         |      |                     |                 |          |
| 7   | Basic wage rate to construction workers            | √                 |         |      |                     |                 |          |
| 8   | Equal wage rate to male and female workers         |                   | √       |      |                     |                 |          |
| 9   | Compensation of temporarily occupied land          | √                 |         |      |                     |                 |          |
| 10  | Compensation of temporarily occupied buildings     | √                 |         |      |                     |                 |          |
| 11  | Legal document of temporarily occupied assets      | √                 |         |      |                     |                 |          |
| 12  | Non use of child labour in construction activities | √                 |         |      |                     |                 |          |

Prepared by:

Verified by:

Monitored by:



Staffs Name List

| SN. | Name                  | Position             | Contact No | Remarks |
|-----|-----------------------|----------------------|------------|---------|
| 1   | Ravindra kumar Thakur | CM                   | 9801159860 |         |
| 2   | Benu Shrestha         | Engineer             | 9801159861 |         |
| 3   | Dhirendra Yadav       | Engineer             | 9801225283 |         |
| 4   | Randhir Singh         | Engineer             | 9801159918 |         |
| 5   | Rajeev Gupta          | Engineer             | 9801159598 |         |
| 6   | Govind Jha            | Engineer             | 9801157340 |         |
| 7   | Pradeep Yadav         | Engineer             | 9801159896 |         |
| 8   | Jibachha Sah          | Engineer             | 9805932183 |         |
| 9   | Dhirendra yadav jr    | Engineer             | 9805913881 |         |
| 10  | Aanand Rayamajhi      | Engineer             | 9801157317 |         |
| 11  | Santosh Kr Lakandae   | Engineer             | 9801159863 |         |
| 12  | Sakir Alam            | Engineer             | 9801160993 |         |
| 13  | Lakshmi Yadav         | Engineer             | 9819008932 |         |
| 14  | Manoj kumar yadav     | Engineer             | 9815714239 |         |
| 15  | Rahul Kr Sharma       | Sub-Engineer         | 9801159862 |         |
| 16  | Adarsh Karn           | Sub-Engineer         |            |         |
| 17  | Sudip Chaudhary       | Surveyor             | 9801159859 |         |
| 18  | Biswas Rai            | Sub-Engineer         | 9801159920 |         |
| 19  | Gyanendra Tamang      | Sub-Engineer         | 9811357918 |         |
| 20  | Sange Tamang          | Sub-Engineer         |            |         |
| 21  | Niketan Pokhrel       | Sub-Engineer         |            |         |
| 22  | Ramesh Shrestha       | Sub-Engineer         |            |         |
| 23  | Jitendra Yadav        | Safety incharge      | 9801160166 |         |
| 24  | Prashant Bagale       | Plumbing Supervisor  | 9801159842 |         |
| 25  | Kiran Chaudhary       | SLT                  | 9801225281 |         |
| 26  | Rupesh Shrestha       | LT                   | 9811316006 |         |
| 27  | Ajit Mukhiya          | LT                   | 9827369882 |         |
| 28  | Pramod shah           | LT                   | 9815779383 |         |
| 29  | Raj kr Mukhiya        | LT                   |            |         |
| 30  | Bishnu Hari Khanal    | Chief Accountant     | 9801157314 |         |
| 31  | Aasish Khanal         | Assistant Accountant | 9801159867 |         |
| 32  | Jarmān Nepal          | Assistant Accountant |            |         |
| 33  | Bikash Adhikari       | Vehicle incharge     | 9801159868 |         |
| 34  | Narsingh Bhandari     | Vehicle incharge     | 9801157318 |         |
| 35  | Madan Bhattarai       | Store Keeper         | 9801159634 |         |
| 36  | Niraj Mandal          | Supervisor           |            |         |
| 37  | Rabin Mandal          | Supervisor           |            |         |



**B. Details of Equipment at Site / Contractor's yard**

| S.N | Equipment Type and Characteristics       | ZHONGHENG CONSTRUCTION GROUP |
|-----|--|------------------------------|
| 1   | Excavator                                | 1                            |
| 2   | Backhoe Loader                           | 9                            |
| 3   | Asphalt plant of adequate capacity       | 1                            |
| 4   | Asphalt pavers                           | 1                            |
| 5   | Vibrating roller                         | 4                            |
| 6   | Pneumatic tyre roller 8 to 10 ton        | 1                            |
| 7   | Smooth wheeled roller 8 to 10 ton        | 1                            |
| 8   | Tipper                                   | 4                            |
| 9   | Crane                                    | 1                            |
| 10  | Water Tank                               | 3                            |
| 11  | Grader                                   | 3                            |
| 12  | Bitumen distributor (4 to 6 Kilo litre)- | 2                            |
| 13  | Water browser ( minimum 5000 Litres)     | 9                            |
| 14  | Chips spreader                           | 0                            |
| 15  | Bitumen decanter minimum 4000 Litres.    | 2                            |
| 16  | Air compressor                           | 2                            |
| 17  | Tipping Trucks                           | 2                            |
| 18  | Service vehicle                          | 4                            |
| 19  | Total station                            | 1                            |
| 20  | Auto Level                               | 30                           |
| 21  | Mobile Generator 15-20 Kva               | 10                           |
| 22  | Mixer Machine                            | 5                            |
| 23  | Broomer                                  | 2                            |
| 24  | Plate Compactor                          | 6                            |
| 25  | Water Pump                               | 12                           |
| 26  | Motorbike                                | 12                           |
| 27  | Tractor                                  | 22                           |

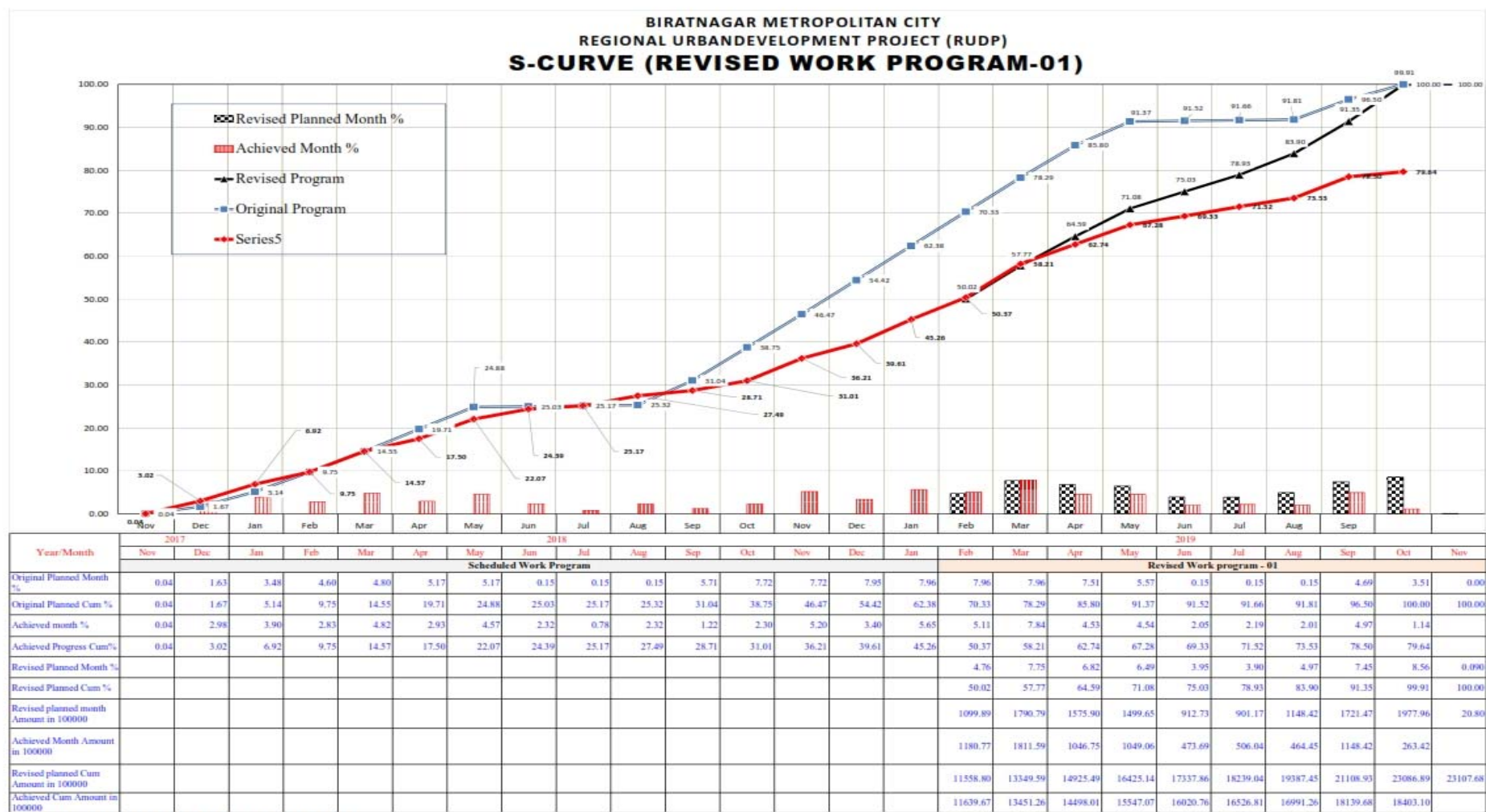


ANNEX-5: S-Curve

**ATTACHED – October 2019**







## Annex-6: Master Plan of RUDP Project



