

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



September 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 28th 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 th October 2017
Date of Commencement	2 nd November 2017
Date of Completion	1 st 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)	52.34%
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>With respect to Revised Work Program-01: Planned : 91.35%, Actual : 78.50%; Lead(+) or Lag(-) by (-) 12.85% Lag</p> <p>Physical progress lagging due to unseasonal monsoon, due to delay in relocation of electrical poles, shifting of telecom poles on time by Nepal Telecom (NTC) 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. 1,712,795,677.24 (including VAT and PS) up to IPC – 11.</p> <p>In Words: 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
1	Sewer Line						
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	1,449.00	2,335.00	38.29%	
2	Storm Water Drain						



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.
3	Road						
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	43,352.42	30,507.58	58.70%	
d	Prime	m	73,860.00	38,657.36	35,202.64	52.34%	
e	Asphalt	m	73,860.00	38,657.36	35,202.64	52.34%	
4	Road Side Drain	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
1	Sewerage Pipe Supply and Installation	m	20,082.00
	Reinforced Concrete Pipe laying and jointing		2241.00
	Line T2 (Secondary)	m	206.00
	Line T3 (Trunk)	m	1905.00
	Line T4 (Trunk)	m	130.00
	HDPE laying and jointing	m	17,841.00
	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
2	Manhole (Brick / RCC)	no.	685.00
3	Sewer Inlet	no.	1,010.00
4	House Connection	no.	3,784.00
5	Reinstatement of Roads	km	73.86
6	Road side Drain	Km	26.05
7	Storm Water Drain	m	652.8



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	595.00	9.00	604.00	59.80%
2	House connection	3,784.00	1,307.00	142.00	1,449.00	38.29%



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 N	Name of Drain	Length in m					Type of Drain	Work Completed				Length of Covered Drain in m	Remarks
		Origin al	Revised	Progress		Cum ulativ e		Brick		RCC			
				Previo us	This Month			m	m³	m	m³		
1	CN2-CN3 (Chyangh Baari Nala)	652.89	585.00	585.00		585	RCC, closed			585		585	completed
2	CN2-CN3 (Chyangh Baari Nala)	132 Nos piles	138	138		138 Nos.							Piling works 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 38.65 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					Remarks
			Progress		Total	Sub-base	Base	Asphalt	RCC	Paint	
			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				
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	426.87			
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				
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	918.20	778.20		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 Puspalal 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				Remarks	
			Progress		Total	Sub-base	Base	Asphalt	RCC		Paint
			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					Remarks
			Progress		Total	Sub-base	Base	Asphalt	RCC	Paint	
			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		90.00	34.80	124.80	124.80	124.80	124.80			
109	T219Q		100.00	13.70	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					
117	T3L13K		-	154.00	154.00	154.00	154.00				
118	R19		-	220.00	220.00	220.00	220.00				
119	R41		-	540.00	540.00	540.00	420.00				
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	3,982.20	50,971.31	50,642.21	43,352.42	38,657.36	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 ²)	
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 ²)	
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 ²)	
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)

SN	Description	Unit	Proposed	Total Up to Previous Month	This Month	Total Up to this Month	Progress
1	Subgrade	m	73,860.00	46,989.11	3,982.20	50,971.31	69.01%
2	Sub Base	m	73,860.00	46,989.11	3,653.10	50,642.21	68.57%
3	Base	m	73,860.00	39,579.32	3,773.10	43,352.42	58.70%
4	Prime/Tack	m	73,860.00	36,192.04	2,465.32	38,657.36	52.34%
5	Asphalt	m	73,860.00	36,192.04	2,465.32	38,657.36	52.34%
6	Paint	m	73,860.00	14,395.30	4,000.00	18,395.30	24.91%



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 (Revised)	This 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		
	Total		28,277.19	1,550.00	29,827.19	28,937.19	890.00	



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 1st, 2nd and 3rd December, 2018 following issues were found. Social Safeguard revisited the site on 29th, 30th and 31st 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	49	146	179	16	2	18	41	134	0
Non local	73	294	337	30	40	52	35	240	0
Indian	2	12	14	0	0	0	10	4	0
TOTAL	124	452	530	46	42	70	86	378	0



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 th October 2017		339,105,000.00	Mobilization Advance
2	IPC 02	2 nd April 2018	2nd November 2017 to 31st March 2018	261,501,492.21	
3	IPC 03	1 st July 2018	1st April 2018 to 30th June 2018	316,582,708.58	
4	IPC 04	1 st October 2018	1st July 2018 to 31st September 2019	105,227,887.16	
5	IPC 05	2 nd December 2018	1st October 2018 to 30th November 2018	95,951,603.44	
6	IPC 06	31 st January 2019	1st December 2018 to 31st January 2019	264,937,394.98	
7	IPC 07	12 th April 2019	1st February 2019 to 31st March 2019	308,805,662.97	
8	IPC 08	9 th May 2019	1st April 2019 to 30th April 2019	106,210,198.68	
9	IPC 09	10 th 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 th September 2019	1 st July 2019 to 30 th September 2019	95,296,297.30	
Total amount excluding PA & Mobilization advance till date =				1,712,795,677.24	



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.

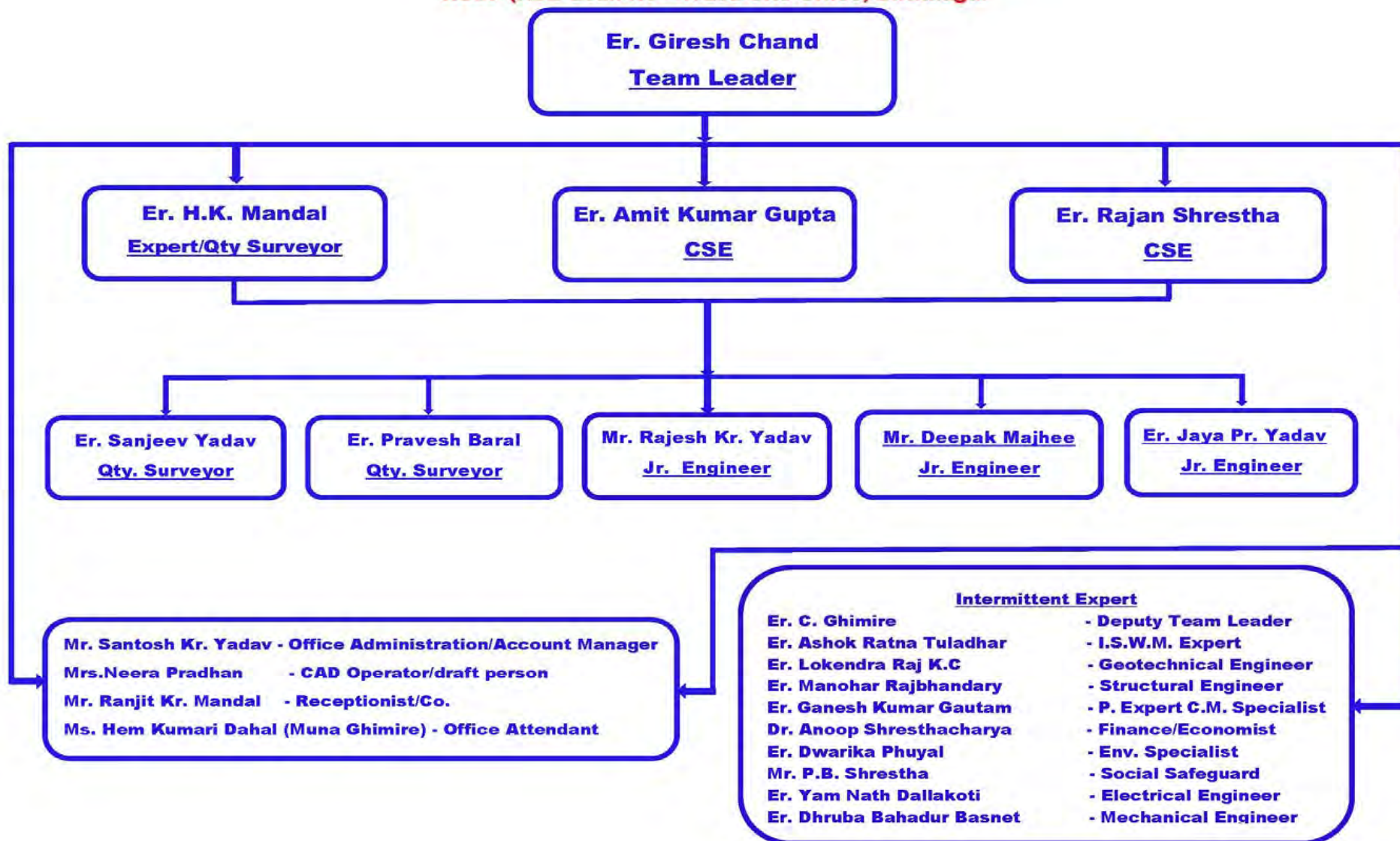
4.3. ORGANIZATION AND STAFFING

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 th Sep 2017	
2	Mr. Ashok Ratna Tuladhar	ISWM (Designer)	6 th Sep 2017	Intermittent
3	Mr. Dwarika Phuyal	Environmental Safeguard Expert	1 Nov 2017	Intermittent
4	Mr. Prakash Bhakata Shrestha	Social Safeguard Monitoring Expert	26 th dec-2017	Intermittent
5	Mr. Hare Krishna Mandal	Expert/Quantity surveyor	1 st Nov 2017	
6	Mr. Amit Kumar Gupta	Construction Supervision Engineer	1 st March 2018	
7	Mr. Rajan Shrestha	CSE/Quantity Surveyor	7 th Nov 2017	Working as CSE from 1 st May 2019.
8	Mr. Rajesh Kumar Yadav	Junior Engineer-1	6 th Sep 2017	
9	Mr. Sanjeev Yadav	Qty. Surveyor	5 th Nov 2017	
10	Mr. Santosh Kumar Yadav	Office Administration/Account Manager	6 th Sep 2017	
11	Mr. Hem Kumari Dahal (Muna Ghimire)	Office Attendant	6 th Sep 2017	
12	Mr. Ranjit Kumar Mandal	Receptionist	10 th Dec 2017	
13	Mr. Pravesh Baral	Junior Engineer-2	10 th Dec 2017	
14	Mr. J.P Yadav	Junior Engineer-3	1 st March 2018	
15	Mr. Deepak Majhi	Junior Engineer-4	1 st March 2018	
16	Mrs. Neera Pradhan	CAD operator/Draft Person	10 th Dec 2017	
17	Mr. Yubraj Poudel	Driver	10 th 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
February-19	7.96%	70.33%	5.11%	50.38%				-19.95%	Lagging
February-19 (after 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

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.	
2	23 rd - 24 th September, 2019	ADB Review Mission led by Senior Project Officer, Mr. Naresh Giri with his team. Team members were the representatives from PCO with Project Director and the representatives from PMC with team leader.	Conducted site visit and various meetings to improve the status of projects – RUDP as well as STIUEIP.

Note: *Due to unseasonal monsoon, delay in relocation of electric & telecom services and unclear Right of Way (RoW), the work progress found very slow.*

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		65,871.00	12,000.00	77,871.00	Under progress
2	Kerb Stone	Rm	147,729.68	84,293.30	7,000.00	91,293.30	61.79%

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	
	Total						

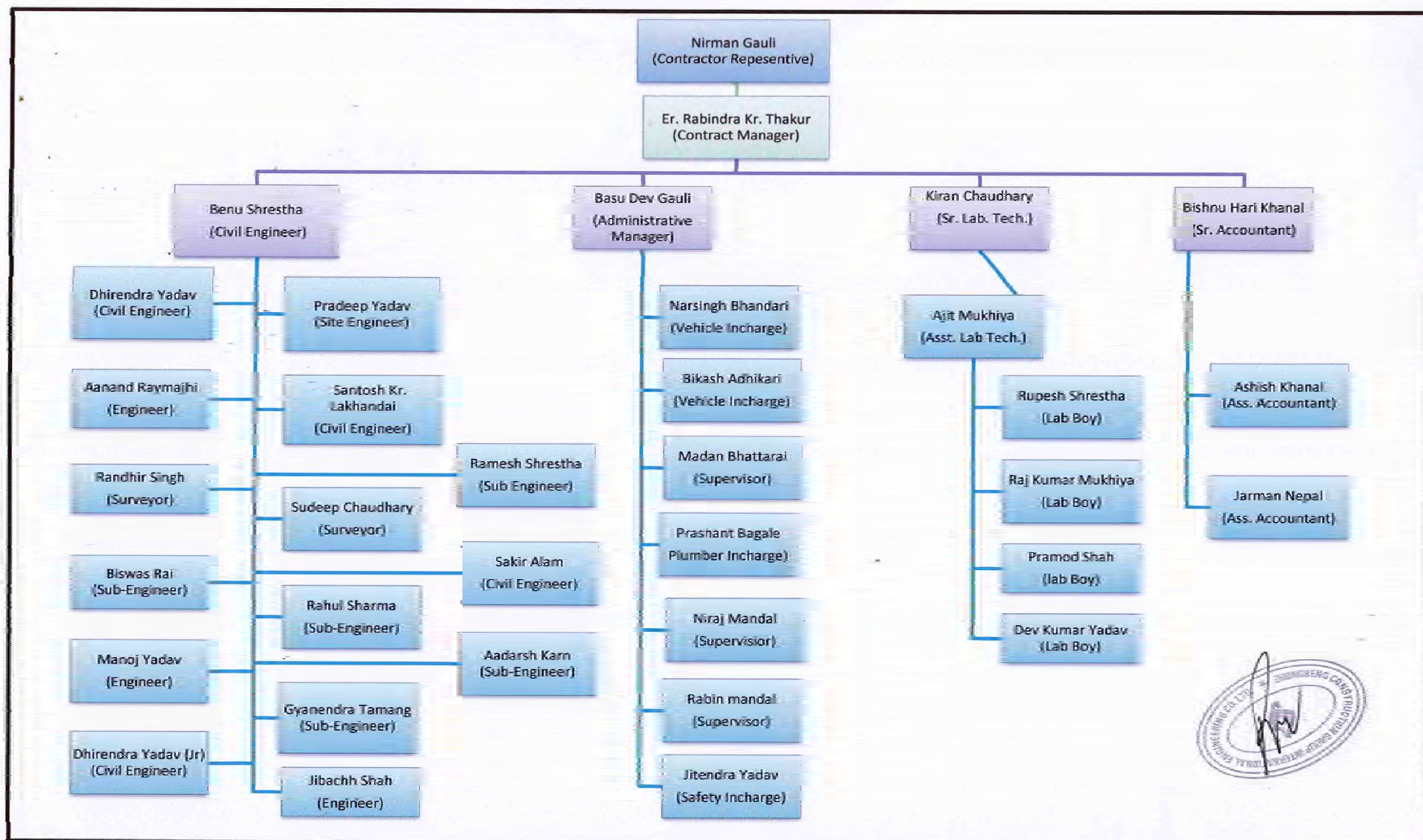
Table 11: PHYSICAL PROGRESS in PRODUCTION/PURCHASE OF HDPE Pipe till date.

<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	Under process
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	
	Total						

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	0.00	5,050.00	
2	UPVC Pipe	110.00	5,050.00	5,050.00	0.00	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) 15/10 Yrs. (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		124	
14	Unskilled Labors		452	

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	2	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	5	Among 5nos., 2ton rollers -2nos.
6	Pneumatic tyre roller 8 to 10 ton	2	1	
7	Smooth wheeled roller 8 to 10 ton	1	0	
8	Grader	1	2	
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 September, 2019





Laying of concrete for crossing slab at R2 – Main road



During ADB Review Mission – 23-24 September 2019 presentation by TL, DSC



Sub grade at R3



Interlocking work on footpath – B1



Pre cast slab casting at Madhumara Yard



Asphalt work at T2L19Q



Pre cast top cover slab for HCC at Madhumara Yard



Pre cast HCC ring at Madhumara Yard



ADB review mission site visit - from 23-24 Sept 2019



Field density test – Sand replacement method for sub base

ANNEX-2: Minutes of Meeting September, 2019

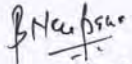
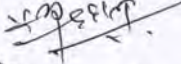




Meeting Minute: 14

Regional Urban Development Project (RUDP), Biratnagar**14th Safeguard Desk (SD) Meeting,**

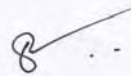
The 14th Safeguard Desk meeting was held on 25th September, 2019 at PIU office under the Chairmanship of Project Manager Er. Bharat Kumar Neupane, discussed over following agendas and the decision were made.

Participants:**Safeguard Desk members:**

Er. Bharat Kumar Neupane	Project Manager, PIU/RUDP, Biratnagar	
Mr. Punam Kumar Dahal	Chief, social Development, PIU/RUDP, Biratnagar	
Mr. Prakash Bhakta Shrestha	Social Safeguard Expert, DSC/RUDP, Biratnagar	
Er. Dwarika Phuyal	Environmental Safeguard Expert DSC/RUDP, Biratnagar	

Invitee:

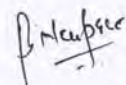
Er. Prakash Chaudhari	Deputy Project Manager
Er. Giresh Chand	Team Leader, DSC/RUDP, Biratnagar


Agenda no-1: ADB Mission Progress Review meeting and Site Visit

Discussion and Decision: Joint meeting and site visit of ADB, PCO, PIU, DSC and Contractors was held on 23rd and 24th September, 2019. The meeting was held at Metropolitan City Office under the chairmanship of Mayor Mr. Bhim Parajuli and discussed over the progress of project and safeguard issues. In meeting presentation on status of project were made by PM Er. Bharat Kumar Neupane and TL Er. Giresh Chand and the issues raised in meeting were clarified.

Agenda no-2: Progress on Safeguard Measures**Discussion and Decision:**

Discussed over the dust emission during construction dust contractor has been sprinkling water over dust prone area, however was not sufficient, contractor therefore instructed to increase the frequency of water sprinkling in dust prone area within construction sites and nearby unpaved road surfaces.

Page 1



Discussed over the Use of personnel Protective Equipment like, helmet, boots, glove, and jackets by labors was found partly compliance. The contractor requested for full compliance. The contractor has provided proper barricades and traffic signs.

Discussed over the matter of drain cover, almost completed road side drains found cover with RCC cover.

Agenda-3: Encourage of Female employment**Discussion and Decision:**

Discussed over the low number of female employee; Contractor instructed to encourage employing as labor and skilled man power to local female.

Contractor instructed to manage separate camp and necessary facilities for female workers to encourage of employment.

Priority should be given to employ local labors.

Agenda -4: Others**Discussion and Decision:**

The overall safeguard compliance found satisfactory.

Handwritten signatures and initials are present at the bottom of the page, including a signature that appears to read "B. N. Singh" and a crossed-out signature.

ANNEX-3: Laboratory Test Results of September,
2019

ATTACHED



Summary Sheet of Monthly Test Report

Month:	September
Year	2019
Type of Material	Sub grade

Sp. Limit

(<18	(>3
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 ≥ 3

6

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
Giresh Chand



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

Month:	September
Year	2019
Type of Material	Sub grade

[illegible]

Consultant

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

Approved By
Team Leader
Giresch Chand

Summary Sheet of Field Density Test

Month	September
Year	2019
Type of Material	Sub-Grade ✓
Density(gm/cc)	Compaction %

[illegible]

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

Approved By
Team Leader
Giresch Chand

Summary Sheet of Monthly Test Report

Month:	September
Year	2019
Type of Material	Sub grade

 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 Giresh Chand
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[illegible]

Summary Sheet of Monthly Test Report

Month:	September
Year	2019
Type of Material	Sub grade

[illegible]

Consultant

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

Approved By
Team Leader
Gireesh Chand

Summary Sheet of Field Density Test

Month	September
Year	2019
Type of Material	Sub-Grade

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



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

Summary Sheet of Monthly Test Report

Consultant
AUTHORITY (P) LTD IN JOINT
ENGINEERS & ARCHITECTS



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City
Contract No:- RUDP/CB/BRT-02

Summary Sheet of Monthly Test Report

Location :- R-9, (West of Neuro hospital)

Location :-R-9,(West of Neuro hospital)																Month:	September
																Year	2019
Sn.	Lab.Ref no.	Location of Sample	Source of Sample	Date of Testing	Sieve Size in mm / passing % By Weight								MDD	OMC	PI%	CBR%	Remarks
					63.0	37.5	20.0	10.0	5.0	2.36	1.18	0.075					
1	RUDP-SB-01	R-9,(0+150)	Chisang Khola	8-Sep-19	100	86.31	69.12	58.42	49.65	39.87	18.16	9.78	6.20	1.29	43.50		

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

Location:-R-9 (West of Neuro hospital)



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

Summary Sheet of Monthly Test Report

Consultant	AN AUTHORITY (P) LTD IN JOINT PLUS ENGINEERS & ARCHITECTS
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Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Field Density Test

Location:-R-34



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

Summary Sheet of Monthly Test Report

Location :-T3L13H

[illegible]

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

Location:-T3L13H

REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/CB/BRT-02

Summary Sheet of Monthly Test Report

Location :-T3L13K															Month:	September		
															Year	2019		
															Type of			
															Material	Sub-base		
															OMC	PI%	CBR%	Remarks
															MDD			
																</		

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

Month	September
Year	2019

Type of Material	Sub-Base
------------------	----------

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







Summary Sheet of Field Density Test

Location:-R-19



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

Summary Sheet of Monthly Test Report

Location :-R-67

[illegible]

Spec. Limit :	
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<6	>30
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Consultant

Contract on June 11, 1998

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 Kr. Thakur

Verified By
Qty Engineer/CSE
H.K. Mandal/Raian Shro

Approved By
Team Leader
Gireesh Chand

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

Location:-R-67

Contractor
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**


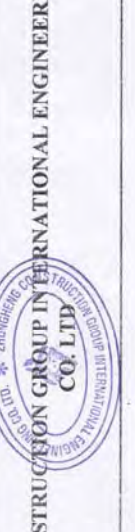


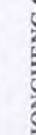
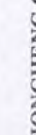
Checked By
Engineer
Benu Shrestha

Submitted By
Contract Manager
Rabindra Kr. Thakur

Verified By
Export Qty Surveyor/CSE
H.k. Mandal/Rajan Shrestha

Approved By
Team Leader
Giresch Chand

Summary Sheet of Monthly Test Report

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

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

Location:-R-7,(T3L7)

**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

Submitted By
Contract Manager
Rabindra Kr. Thakur

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

Approved By
Team Leader
Gireesh Chand

Summary Sheet of Monthly Test Report

Location:-R-34

[illegible]

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 Kr. Thakur

.....
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-34



Summary Sheet of Monthly Test Report

Location:-T3L13H

[illegible]

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 Shresth

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

.....
Verified By
Export Qty Surveyor
H.K. Mandal/Rajan S

Approved By
Team Leader
Gireesh Chand

REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Field Density Test

Location:-T3L13H

[illegible]

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 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 Monthly Test Report

Location:-T3L13K

[illegible]

Species

Consultant

ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO.

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

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

Location:-T3L13K

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

Summary Sheet of Monthly Test Report

Location:- R-2

Contractor

ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL
ENGINEERING CO. LTD

Submitted By
Contract Manager
Rabindra kr. Thakur

Checked By
Engineer
Benu Shrestha

Contract No:- RUDP/ICB/BRT-02

Location:-R-2



15

Approved By
Team Leader
Gireesh Chand

Summary Sheet of Field Density Test

Month	September
Year	2019
Type of Material	Base

Approved By
Team Leader
Giresch Chand

REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No: RUDP/ICB/BRT-02

Summary Sheet of Monthly Test Report

[illegible]

Spn

Contractor

Consultant

ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING

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

Summary Sheet of Field Density Test

[illegible]

Approved By
Team Leader
Giresh Chand

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

Summary Sheet of Monthly Test Report

Location:-T3L12

[illegible]

sp

Contractor

ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD

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

Checked By
Engineer
Benu Shresth

Submitted By
Contract Manager
Rabindra Kr. Thakur

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

Approved By
Team Leader
Gireesh Chand

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

Location: T3L12

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



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

Contract No: RUDP/ICB/BRT-02

Summary Sheet of Monthly Test Report

[illegible]

Contractor

Consultant

ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING

**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
Giresch Chand

Month	September
Year	2019
Type of Material	Base

Approved By
Team Leader
Giresch Chand

Summary Sheet of Monthly Test Report

Location:-R-7,(Sidartha Chowk to neuro Chowk)

[illegible]

5

Contractor

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 Shresth

Submitted By
Contract Manager
Rabindra Kr. Thakur

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

Approved By
Team Leader
Gireesh Chand

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

Location:-R-7,(Sidartha Chowk to Neuro Chowk)



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No: RUDP/ICB/BRT-02

Summary Sheet of Monthly Test Report

[illegible]

Summary Sheet of Field Density Test

Location:-R-9 (West of Neuro Hospital)



Contract No: RUDP/ICB/BRT-02

Summary Sheet of Monthly Test Report

Location: T3L7A

[illegible]

Contractor

Consultant

ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING

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/Rajian Shrestha


Approved By
Team Leader
Giresch Chand

Summary Sheet of Field Density Test

Location: T3L7A

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



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

Summary Sheet of Monthly Test Report

[illegible]

Contractor

Liberty (A) Consultant

GROUP INTERNATIONAL
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO.

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
Giresch Chand

[illegible]

Biratnagar Metropolitan City

Contract No: RUDP/ICB/BRT-02

Summary Sheet of Monthly Test Report

Location:-R-7 (South of Neuro Chowk)

[illegible]

Sp

Contractor

ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO.

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 Shresth

Submitted By
Contract Manager
Rabindra Kr. Thakur

Export 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 Field Density Test

Location:-R-7,(South of Neuro chowk)

[illegible]

REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No: RUDP/ICB/BRT-02

Summary Sheet of Monthly Test Report

[illegible]

Contractor

Healthcare Consultant

ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO., LTD

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

Checked By
Engineer
Benu Shrestha

Submitted By
Contract Manager
Rabindra Kr. Thakur

Verified By
Export Qty Surveyor/CSE
J.L.K. Mandal/Rajan Shrestha

Approved By
Team Leader
Gireesh Chand

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

Location:-R-12

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



Summary Sheet of Monthly Test Report

[illegible]

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

Summary Sheet of Field Density Test

[illegible]

Summary Sheet of Monthly Test Report



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

Location:-T2L19Q



Summary Sheet of Monthly Test Report

Consultant

Location:-R-9A



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

Summary Sheet of Monthly Test Report

[illegible]



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No: RUDP/ICB/BRT-02

Summary Sheet of Monthly Test Report

[illegible]

Summary Sheet of Field Density Test

Location:-T2L18Y

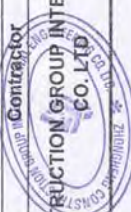
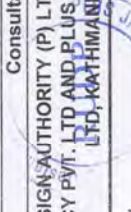




Summary Sheet of Monthly Test Report





Consultant

Location:-T2L19P



REGIONAL URBAN DEVELOPMENT PROJECT Biratnagar Metropolitan City Contract No: RUDP/ICB/BRT-02 Daily Application Rate Check for Priming work SUMMARY FOR THE MONTH OF SEPTEMBER 2019											
Type of Bitumen: 80/100 P.G Cutter Percentage: MC 70:MC 30											
SN NO	Location	Date of Priming	Station From	Station to	Side of Priming	Area of Priming (M)	Intersection Area m2	Total Area m2	Bitumen Consumption (Ltr)	Application Rate By Deep Ltr/m2	Application Rate Bit Tray Test Ltr/m2
1	S13-A	7-Sep	0+000	0+237	Both side	1066.5	0	1066.5	1150	1.08	1.04
2	R-20	9-Sep	0+000	0+112	Both Side	456.96	0	456.96	500	1.09	1.04
3	T2L18Y	9-Sep	0+000	0+118	Both Side	416.54	0	416.54	450	1.08	1.06
4	R-26	9-Sep	0+000	0+090	Both Side	378	0	378	400	1.06	1.03
5	T3L23C	10-Sep-19	0+000	0+064	Both Side	581.12	0	581.12	600	1.03	1.05
6	T3L11K	10-Sep-19	0+000	0+193	Both Side	511.45	0	511.45	550	1.08	1.03
7	T2L19P	10-Sep-19	0+000	0+125	Both Side	488.75	0	488.75	500	1.02	1.03
8	T2L19Q	12-Sep-19	0+000	0+113	Both Side	457.85	0	457.85	500	1.09	1.06
9	R-3A	12-Sep	0+000	0+110	Both Side	377.3	0	377.3	400	1.060	1.04
Required specification for Prime coat 1.0 Lit/M2 \pm 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 Engineer Benu Shrestha						 Verified By Expert Qty Surveyor/CSE H.K. Mandal/Rajan Shrestha					
 Submitted By Contract Manager Rabindra Kr. Thakur						 Approved By Team Leader Gireesh Chaud					





REGIONAL URBAN DEVELOPMENT PROJECT Biratnagar Metropolitan City Contract No: RUDP/CB/BRT-02 Daily Application Rate Check for TACK COAT SUMMARY FOR THE MONTH OF SEPTEMBER 2019											
Type of Bitumen: 60/100 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 Dip Lit/m2	Application Rate By Tray Test Lit/m2
1	S13-A	20-Sep-19	0+000	0+237	BHS	1076.54	0	1076.54	600	0.56	0.51
2	T2L19P	21-Sep-19	0+000	0+126	BHS	502.5	0	502.5	300	0.60	0.51
3	T2L18Y	22-Sep-19	0+000	0+051	BHS	180.03	0	180.03	100	0.56	0.52
4	R-20	22-Sep-19	0+000	0+112	BHS	453.6	0	453.60	250	0.55	0.53
5	R-26	22-Sep-19	0+000	0+090	BHS	378	0	378.00	200	0.53	0.51
6	R9-B	22-Sep-19	0+000	0+085	BHS	392.5	0	392.50	200	0.52	0.51
7	R9-A	22-Sep-19	0+000	0+110	BHS	377.3	0	377.30	200	0.53	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											
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 Rabintra K. Thakur					
						 Approved By Team Leader Gireesh Chand					

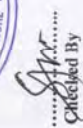

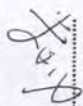

REGIONAL URBAN DEVELOPMENT PROJECT
Biratnagar Metropolitan City
Contract No: RUDP/ICB/BRT-02
Daily Application Rate Check for TACK COAT
SUMMARY FOR THE MONTH OF SEPTEMBER 2019

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 Dip Lit/m2	Application Rate Bt Tray Test Lit/m2
8	T2L19Q	22-Sep-19	0+000	0+113	BHS	448.64	0	448.64	250	0.56	0.55
9	T2L18Y	23-Sep-19	0+000	0+118	BHS	261.3	0	261.3	150	0.57	0.54
10	R-5(T3L11k)	23-Sep-19	0+000	0+193	BHS	514.34	0	514.34	300	0.58	0.55
11	T3L23C	23-Sep-19	0+000	0+064	BHS	581.12	0	581.12	300	0.52	0.51
12	R-42	23-Sep-19	0+000	0+105	BHS	557.18	0	557.18	300	0.53	0.51
13	R-102	26-Sep-19	0+000	0+140	BHS	525	0	525.00	300	0.57	0.56
14	R-12	26-Sep-19	0+000	0+140	BHS	714	0	714.00	400	0.56	0.54
								Total	3850		

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

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 Rabinendra Kr. Thakur	Verified By  Expert Qty Surveyor/CSE H.K. Mandal/Rajan Shrestha	Approved By  Team Leader Gireesh Chand
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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 September 2019																	
S. No.	LAB. REF. NO.	Date of Laying	Location of Work ch:	Mix Agg Gradation						Bitumen Content From Test %	Mix Density gni/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	102	20/09/2019	S13-A, 0+000 to 0+237	100	100	77.10	56.69	35.35	16.99	6.90	5.80	2.375	3.05	16.37	11580	2.43	
2	103	21/09/2019	T2L19P, 0+000 To 0+125	100	100	78.78	56.08	35.28	17.46	6.85	5.74	2.452	3.19	16.37	11625	2.33	
3	104	22/09/2019	T2L18Y, 0+000 To 0+051	100	100	78.24	56.79	36.94	18.68	7.01	5.80	2.373	3.11	16.43	11570	2.35	
4	105	22/09/2019	R-20, 0+000 To 0+112	100	100	78.26	55.57	34.37	16.76	6.58	5.69	2.371	3.37	16.42	11565	2.50	
5	106	22/09/2019	R-26, 0+000 To 0+090	100	100	78.46	55.43	34.63	16.91	6.61	5.77	2.373	3.16	16.40	11650	2.45	
6	107	22/09/2019	R-9B, 0+000 To 0+085	100	100	77.92	54.68	33.66	16.36	6.27	5.79	2.374	3.10	16.37	11576	2.40	
7	108	22/09/2019	R-9A, 0+000 To 0+110	100	100	78.89	55.98	35.71	16.41	6.01	5.74	2.372	3.30	16.47	11540	2.45	
8	109	22/09/2019	T2L19Q, 0+000 To 0+113	100	100	79.00	56.20	36.06	16.76	6.36	5.70	2.372	3.36	16.44	11585	2.40	
9	110	23/09/2019	T2L18Y, 0+000 To 0+118	100	100	78.14	56.07	36.45	16.60	6.42	5.75	2.453	3.33	16.51	11620	2.40	
10	111	23/09/2019	R-9(T3L11K), 0+000 to 0+193	100	100	79.43	56.31	35.85	15.92	5.95	5.69	2.455	3.57	16.59	11952	2.45	
11	112	23/09/2019	T3L23C, 0+000 to 0+064	100	100	78.89	55.88	36.37	17.06	6.46	5.71	2.376	3.18	16.30	11731	2.40	
12	113	23/09/2019	R-43, 000 to 0+105	100	100	78.89	56.08	36.67	17.58	6.76	5.73	2.374	3.24	16.39	12284	2.27	
13	114	26/09/2019	R-102, 0+000 to 0+140	100	100	78.15	55.14	35.09	16.53	6.03	5.71	2.369	3.47	16.55	11841	2.60	
14	115	26/09/2019	R-12, 0+000 to 0+140	100	100	81.86	57.25	34.54	15.98	7.07	5.74	2.374	3.23	16.41	11465	2.57	
Specifications				100	100-100	76-82	54-59	33-37	16-21	6 to 9	Nil	5.703	Min 2.358	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				BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.M. 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				Approved By Team Leader Gresh Chard					



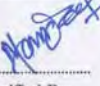







REGIONAL URBAN DEVELOPMENT PROJECT





Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Concrete Cube Test Report

S No.	Location	Lab Ref no.	Type of Cement	Brand of Cement	Source of Sand+Aggs	Date of Casting	Month		September	
							Year		2019	
							Type of Material		Conc. Cube	
							Date of Testing		Strength, N/mm ²	
							7 Days	28 Days	7 Days	28 Days
1	R-4	RUDP-2410	Saptakoshi	OPC	Chisang Khola	5-Aug-19	12-Aug-19	2-Sep-19	16.54	M15
2	R-46	RUDP-2411	Saptakoshi	OPC	Chisang Khola	5-Aug-19	12-Aug-19	2-Sep-19	21.10	M20
3	T3L23C	RUDP-2412	Saptakoshi	OPC	Chisang Khola	5-Aug-19	12-Aug-19	2-Sep-19	23.65	M20
4	Judi-yard	RUDP-2413	Saptakoshi	OPC	Chisang Khola	5-Aug-19	12-Aug-19	2-Sep-19	22.00	M20
5	Judi-yard	RUDP-2414	Saptakoshi	OPC	Chisang Khola	5-Aug-19	12-Aug-19	2-Sep-19	22.81	M20
6	Judi-yard	RUDP-2415	Saptakoshi	OPC	Chisang Khola	6-Aug-19	13-Aug-19	3-Sep-19	22.08	M20
7	Madhumara-yard	RUDP-2416	Saptakoshi	OPC	Chisang Khola	7-Aug-19	14-Aug-19	4-Sep-19	22.73	M20
8	Madhumara-yard	RUDP-2417	Saptakoshi	OPC	Chisang Khola	7-Aug-19	14-Aug-19	4-Sep-19	27.16	M25
9	B-1	RUDP-2418	Saptakoshi	OPC	Chisang Khola	7-Aug-19	14-Aug-19	4-Sep-19	23.03	M20
10	R-2	RUDP-2419	Saptakoshi	OPC	Chisang Khola	7-Aug-19	14-Aug-19	4-Sep-19	23.43	M20
11	R-4	RUDP-2420	Saptakoshi	OPC	Chisang Khola	9-Aug-19	16-Aug-19	6-Sep-19	17.14	M15
12	T3L Trunk line	RUDP-2421	Saptakoshi	OPC	Chisang Khola	9-Aug-19	16-Aug-19	6-Sep-19	23.10	M20
13	Judi-yard	RUDP-2422	Saptakoshi	OPC	Chisang Khola	9-Aug-19	16-Aug-19	6-Sep-19	24.47	M20
14	Judi-yard	RUDP-2423	Saptakoshi	OPC	Chisang Khola	9-Aug-19	16-Aug-19	6-Sep-19	22.15	M20
15	T3L39	RUDP-2424	Saptakoshi	OPC	Chisang Khola	9-Aug-19	16-Aug-19	6-Sep-19	23.5	M20
16	R-9(T3L11K)	RUDP-2425	Saptakoshi	OPC	Chisang Khola	11-Aug-19	18-Aug-19	8-Sep-19	23.03	M20
17	R-4	RUDP-2426	Saptakoshi	OPC	Chisang Khola	11-Aug-19	18-Aug-19	8-Sep-19	24.10	M20
18	T3L5	RUDP-2427	Saptakoshi	OPC	Chisang Khola	11-Aug-19	18-Aug-19	8-Sep-19	22.81	M20
19	R-3	RUDP-2428	Saptakoshi	OPC	Chisang Khola	11-Aug-19	18-Aug-19	8-Sep-19	22.73	M20
20	Madhumara-yard	RUDP-2429	Saptakoshi	OPC	Chisang Khola	11-Aug-19	18-Aug-19	8-Sep-19	22.00	M20
21	Madhumara-yard	RUDP-2430	Saptakoshi	OPC	Chisang Khola	11-Aug-19	18-Aug-19	8-Sep-19	27.01	M25
22	R-82	RUDP-2431	Saptakoshi	OPC	Chisang Khola	12-Aug-19	19-Aug-19	9-Sep-19	22.73	M20
23	B-1	RUDP-2432	Saptakoshi	OPC	Chisang Khola	12-Aug-19	19-Aug-19	9-Sep-19	22.76	M20
24	T3L23C	RUDP-2433	Saptakoshi	OPC	Chisang Khola	12-Aug-19	19-Aug-19	9-Sep-19	23.33	M20
25	T3L39	RUDP-2434	Saptakoshi	OPC	Chisang Khola	12-Aug-19	19-Aug-19	9-Sep-19	22.73	M20
26	Judi-yard	RUDP-2435	Saptakoshi	OPC	Chisang Khola	12-Aug-19	19-Aug-19	9-Sep-19	23.65	M20
27	Judi-yard	RUDP-2436	Saptakoshi	OPC	Chisang Khola	12-Aug-19	19-Aug-19	9-Sep-19	22.18	M20
28	Judi-yard	RUDP-2437	Saptakoshi	OPC	Chisang Khola	12-Aug-19	19-Aug-19	9-Sep-19	22.66	M20
29	R-4	RUDP-2438	Saptakoshi	OPC	Chisang Khola	12-Aug-19	19-Aug-19	9-Sep-19	17.67	M15
30	T3L Trunk line	RUDP-2439	Saptakoshi	OPC	Chisang Khola	12-Aug-19	19-Aug-19	9-Sep-19	23.33	M20
31	R-2	RUDP-2440	Saptakoshi	OPC	Chisang Khola	12-Aug-19	19-Aug-19	9-Sep-19	24.39	M20
32	Madhumara-yard	RUDP-2441	Saptakoshi	OPC	Chisang Khola	13-Aug-19	20-Aug-19	10-Sep-19	22.51	M20
33	Madhumara-yard	RUDP-2442	Saptakoshi	OPC	Chisang Khola	13-Aug-19	20-Aug-19	10-Sep-19	22.96	M20
34	Madhumara-yard	RUDP-2443	Saptakoshi	OPC	Chisang Khola	13-Aug-19	20-Aug-19	10-Sep-19	32.29	M30
35	Madhumara-yard	RUDP-2444	Saptakoshi	OPC	Chisang Khola	13-Aug-19	20-Aug-19	10-Sep-19	26.70	M25
36	R-4	RUDP-2445	Saptakoshi	OPC	Chisang Khola	13-Aug-19	20-Aug-19	10-Sep-19	18.12	M15
37	T3L23C	RUDP-2446	Saptakoshi	OPC	Chisang Khola	13-Aug-19	20-Aug-19	10-Sep-19	23.21	M20
38	T3L5	RUDP-2447	Saptakoshi	OPC	Chisang Khola	13-Aug-19	20-Aug-19	10-Sep-19	22.51	M20
39	R-4	RUDP-2448	Saptakoshi	OPC	Chisang Khola	13-Aug-19	20-Aug-19	10-Sep-19	18.12	M15
40	Judi-yard	RUDP-2449	Saptakoshi	OPC	Chisang Khola	13-Aug-19	20-Aug-19	10-Sep-19	23.47	M20
41	Judi-yard	RUDP-2450	Saptakoshi	OPC	Chisang Khola	13-Aug-19	20-Aug-19	10-Sep-19	22.66	M20
42	R-4	RUDP-2451	Saptakoshi	OPC	Chisang Khola	14-Aug-19	21-Aug-19	11-Sep-19	22.48	M20
43	R-2	RUDP-2452	Saptakoshi	OPC	Chisang Khola	14-Aug-19	21-Aug-19	11-Sep-19	23.28	M20
44	T3L Trunk line	RUDP-2453	Saptakoshi	OPC	Chisang Khola	14-Aug-19	21-Aug-19	11-Sep-19	22.84	M20
45	T3L Trunk line	RUDP-2454	Saptakoshi	OPC	Chisang Khola	14-Aug-19	21-Aug-19	11-Sep-19	22.96	M20
46	R-3	RUDP-2455	Saptakoshi	OPC	Chisang Khola	14-Aug-19	21-Aug-19	11-Sep-19	23.18	M20
47	T3L5	RUDP-2456	Saptakoshi	OPC	Chisang Khola	14-Aug-19	21-Aug-19	11-Sep-19	22.73	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 Srestha						 Submitted By Contract Manager Rabindra K. 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 Concrete Cube Test Report											
							Month		September		
							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	
48	Madhumara-yard	RUDP-2457	Saptakoshi	OPC	Chisang Khola	14-Aug-19	21-Aug-19	11-Sep-19		23.65	M20
49	Madhumara-yard	RUDP-2458	Saptakoshi	OPC	Chisang Khola	14-Aug-19	21-Aug-19	11-Sep-19		22.91	M20
50	Madhumara-yard	RUDP-2459	Saptakoshi	OPC	Chisang Khola	14-Aug-19	21-Aug-19	11-Sep-19		27.45	M25
51	Judi-yard	RUDP-2460	Saptakoshi	OPC	Chisang Khola	14-Aug-19	21-Aug-19	11-Sep-19		22.81	M20
52	R-4	RUDP-2461	Saptakoshi	OPC	Chisang Khola	14-Aug-19	21-Aug-19	11-Sep-19		17.74	M15
53	R-4	RUDP-2462	Saptakoshi	OPC	Chisang Khola	14-Aug-19	21-Aug-19	11-Sep-19		18.49	M15
54	R-3	RUDP-2463	Saptakoshi	OPC	Chisang Khola	16-Aug-19	23-Aug-19	13-Sep-19		23.65	M20
55	R-3	RUDP-2464	Saptakoshi	OPC	Chisang Khola	16-Aug-19	23-Aug-19	13-Sep-19		22.69	M20
56	T3L Trunk line	RUDP-2465	Saptakoshi	OPC	Chisang Khola	16-Aug-19	23-Aug-19	13-Sep-19		22.81	M20
57	T3L Trunk line	RUDP-2466	Saptakoshi	OPC	Chisang Khola	16-Aug-19	23-Aug-19	13-Sep-19		22.73	M20
58	T3L5	RUDP-2467	Saptakoshi	OPC	Chisang Khola	16-Aug-19	23-Aug-19	13-Sep-19		23.65	M20
59	T2L19G	RUDP-2468	Saptakoshi	OPC	Chisang Khola	16-Aug-19	23-Aug-19	13-Sep-19		23.28	M20
60	T3L39	RUDP-2469	Saptakoshi	OPC	Chisang Khola	16-Aug-19	23-Aug-19	13-Sep-19		23.10	M20
61	T3L39	RUDP-2470	Saptakoshi	OPC	Chisang Khola	16-Aug-19	23-Aug-19	13-Sep-19		22.81	M20
62	Judi-yard	RUDP-2471	Saptakoshi	OPC	Chisang Khola	16-Aug-19	23-Aug-19	13-Sep-19		22.73	M20
63	Judi-yard	RUDP-2472	Saptakoshi	OPC	Chisang Khola	16-Aug-19	23-Aug-19	13-Sep-19		22.26	M20
64	Judi-yard	RUDP-2473	Saptakoshi	OPC	Chisang Khola	16-Aug-19	23-Aug-19	13-Sep-19		23.65	M20
65	R-4	RUDP-2474	Saptakoshi	OPC	Chisang Khola	16-Aug-19	23-Aug-19	13-Sep-19		17.74	M15
66	R-4	RUDP-2475	Saptakoshi	OPC	Chisang Khola	16-Aug-19	23-Aug-19	13-Sep-19		16.92	M15
67	R-4	RUDP-2476	Saptakoshi	OPC	Chisang Khola	16-Aug-19	23-Aug-19	13-Sep-19		22.00	M20
68	Madhumara-yard	RUDP-2477	Saptakoshi	OPC	Chisang Khola	16-Aug-19	23-Aug-19	13-Sep-19		22.96	M20
69	Madhumara-yard	RUDP-2478	Saptakoshi	OPC	Chisang Khola	16-Aug-19	23-Aug-19	13-Sep-19		22.60	M20
70	Madhumara-yard	RUDP-2479	Saptakoshi	OPC	Chisang Khola	16-Aug-19	23-Aug-19	13-Sep-19		26.78	M25
71	T3L Trunk line	RUDP-2480	Saptakoshi	OPC	Chisang Khola	16-Aug-19	23-Aug-19	13-Sep-19		23.21	M20
72	R-3	RUDP-2481	Saptakoshi	OPC	Chisang Khola	17-Aug-19	24-Aug-19	14-Sep-19		22.08	M20
73	T3L39	RUDP-2482	Saptakoshi	OPC	Chisang Khola	17-Aug-19	24-Aug-19	14-Sep-19		23.50	M20
74	T3L5	RUDP-2483	Saptakoshi	OPC	Chisang Khola	17-Aug-19	24-Aug-19	14-Sep-19		23.10	M20
75	Judi-yard	RUDP-2484	Saptakoshi	OPC	Chisang Khola	17-Aug-19	24-Aug-19	14-Sep-19		24.17	M20
76	Judi-yard	RUDP-2485	Saptakoshi	OPC	Chisang Khola	17-Aug-19	24-Aug-19	14-Sep-19		22.41	M20
77	R-4	RUDP-2486	Saptakoshi	OPC	Chisang Khola	17-Aug-19	24-Aug-19	14-Sep-19		16.99	M15
78	R-4	RUDP-2487	Saptakoshi	OPC	Chisang Khola	17-Aug-19	24-Aug-19	14-Sep-19		17.59	M15
79	Madhumara-yard	RUDP-2488	Saptakoshi	OPC	Chisang Khola	17-Aug-19	24-Aug-19	14-Sep-19		22.73	M20
80	Madhumara-yard	RUDP-2489	Saptakoshi	OPC	Chisang Khola	17-Aug-19	24-Aug-19	14-Sep-19		21.93	M20
81	T3L Trunk line	RUDP-2490	Saptakoshi	OPC	Chisang Khola	17-Aug-19	24-Aug-19	14-Sep-19		22.73	M20
82	T3L Trunk line	RUDP-2491	Saptakoshi	OPC	Chisang Khola	19-Aug-19	26-Aug-19	16-Sep-19		23.06	M20
83	T3L Trunk line	RUDP-2492	Saptakoshi	OPC	Chisang Khola	19-Aug-19	26-Aug-19	16-Sep-19		22.88	M20
84	R-3	RUDP-2493	Saptakoshi	OPC	Chisang Khola	19-Aug-19	26-Aug-19	16-Sep-19		23.13	M20
85	R-181A	RUDP-2494	Saptakoshi	OPC	Chisang Khola	19-Aug-19	26-Aug-19	16-Sep-19		22.81	M20
86	T3L5	RUDP-2495	Saptakoshi	OPC	Chisang Khola	19-Aug-19	26-Aug-19	16-Sep-19		24.25	M20
87	R-4	RUDP-2496	Saptakoshi	OPC	Chisang Khola	19-Aug-19	26-Aug-19	16-Sep-19		23.18	M20
88	R-4	RUDP-2497	Saptakoshi	OPC	Chisang Khola	19-Aug-19	26-Aug-19	16-Sep-19		23.58	M20
89	Judi-yard	RUDP-2498	Saptakoshi	OPC	Chisang Khola	19-Aug-19	26-Aug-19	16-Sep-19		23.21	M20
90	Judi-yard	RUDP-2499	Saptakoshi	OPC	Chisang Khola	19-Aug-19	26-Aug-19	16-Sep-19		21.58	M20
91	Madhumara-yard	RUDP-2500	Saptakoshi	OPC	Chisang Khola	19-Aug-19	26-Aug-19	16-Sep-19		22.26	M20
92	Madhumara-yard	RUDP-2501	Saptakoshi	OPC	Chisang Khola	19-Aug-19	26-Aug-19	16-Sep-19		32.44	M30
93	T3L Trunk line	RUDP-2502	Saptakoshi	OPC	Chisang Khola	21-Aug-19	28-Aug-19	18-Sep-19		23.58	M20
94	T3L Trunk line	RUDP-2503	Saptakoshi	OPC	Chisang Khola	21-Aug-19	28-Aug-19	18-Sep-19		22.84	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 Gireesh 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		September	
							Year		2019	
							Type of Material		Conc. Cube	
							Date of Testing		Strength, N/mm ²	Concrete Grade
							7 Days	28 Days		
95	T3L5	RUDP-2504	Saptakoshi	OPC	Chisang Khola	21-Aug-19	28-Aug-19	18-Sep-19	23.80	M20
96	R-4	RUDP-2505	Saptakoshi	OPC	Chisang Khola	21-Aug-19	28-Aug-19	18-Sep-19	16.54	M15
97	R-4	RUDP-2506	Saptakoshi	OPC	Chisang Khola	21-Aug-19	28-Aug-19	18-Sep-19	17.29	M15
98	Judi-yard	RUDP-2507	Saptakoshi	OPC	Chisang Khola	23-Aug-19	30-Aug-19	20-Sep-19	23.36	M20
99	Judi-yard	RUDP-2508	Saptakoshi	OPC	Chisang Khola	23-Aug-19	30-Aug-19	20-Sep-19	22.33	M20
100	Madhumara-yard	RUDP-2509	Saptakoshi	OPC	Chisang Khola	23-Aug-19	30-Aug-19	20-Sep-19	22.88	M20
101	Madhumara-yard	RUDP-2510	Saptakoshi	OPC	Chisang Khola	23-Aug-19	30-Aug-19	20-Sep-19	27.91	M25
102	R-4	RUDP-2511	Saptakoshi	OPC	Chisang Khola	25-Aug-19	1-Sep-19	22-Sep-19	15.43	M20
103	R-3(Telecom)	RUDP-2512	Saptakoshi	OPC	Chisang Khola	25-Aug-19	1-Sep-19	22-Sep-19	16.32	M20
104	Judi-yard	RUDP-2513	Saptakoshi	OPC	Chisang Khola	25-Aug-19	1-Sep-19	22-Sep-19	16.32	M20
105	R-181A	RUDP-2514	Saptakoshi	OPC	Chisang Khola	25-Aug-19	1-Sep-19	22-Sep-19	16.69	M20
106	Madhumara-yard	RUDP-2515	Saptakoshi	OPC	Chisang Khola	25-Aug-19	1-Sep-19	22-Sep-19	14.23	M20
107	Judi-yard	RUDP-2516	Saptakoshi	OPC	Chisang Khola	25-Aug-19	1-Sep-19	22-Sep-19	14.68	M20
108	T3L Trunk line	RUDP-2517	Saptakoshi	OPC	Chisang Khola	25-Aug-19	1-Sep-19	22-Sep-19	16.32	M20
109	R-3(T3L5)	RUDP-2518	Saptakoshi	OPC	Chisang Khola	25-Aug-19	1-Sep-19	22-Sep-19	17.36	M20
110	T2L19X	RUDP-2519	Saptakoshi	OPC	Chisang Khola	25-Aug-19	1-Sep-19	22-Sep-19	16.69	M20
111	T3L Trunk Line	RUDP-2520	Saptakoshi	OPC	Chisang Khola	25-Aug-19	1-Sep-19	22-Sep-19	17.21	M20
112	Judi-yard	RUDP-2521	Saptakoshi	OPC	Chisang Khola	26-Aug-19	2-Sep-19	23-Sep-19	16.54	M20
113	R-46	RUDP-2522	Saptakoshi	OPC	Chisang Khola	26-Aug-19	2-Sep-19	23-Sep-19	15.43	M20
114	Madhumara-yard	RUDP-2523	Saptakoshi	OPC	Chisang Khola	26-Aug-19	2-Sep-19	23-Sep-19	19.39	M20
115	R-4	RUDP-2524	Saptakoshi	OPC	Chisang Khola	26-Aug-19	2-Sep-19	23-Sep-19	11.11	M15
116	T3L10F	RUDP-2525	Saptakoshi	OPC	Chisang Khola	26-Aug-19	2-Sep-19	23-Sep-19	16.39	M20
117	T3L10F	RUDP-2526	Saptakoshi	OPC	Chisang Khola	26-Aug-19	2-Sep-19	23-Sep-19	15.80	M20
118	Judi-yard	RUDP-2527	Saptakoshi	OPC	Chisang Khola	26-Aug-19	2-Sep-19	23-Sep-19	15.80	M20
119	T3L Trunk Line	RUDP-2528	Saptakoshi	OPC	Chisang Khola	26-Aug-19	2-Sep-19	23-Sep-19	16.32	M20
120	R-4	RUDP-2529	Saptakoshi	OPC	Chisang Khola	26-Aug-19	2-Sep-19	23-Sep-19	17.21	M20
121	R-46	RUDP-2530	Saptakoshi	OPC	Chisang Khola	27-Aug-19	3-Sep-19	24-Sep-19	15.53	M20
122	T2L10A	RUDP-2531	Saptakoshi	OPC	Chisang Khola	27-Aug-19	3-Sep-19	24-Sep-19	15.43	M20
123	R-181A	RUDP-2532	Saptakoshi	OPC	Chisang Khola	27-Aug-19	3-Sep-19	24-Sep-19	16.62	M20
124	Madhumara-yard	RUDP-2533	Saptakoshi	OPC	Chisang Khola	27-Aug-19	3-Sep-19	24-Sep-19	18.19	M25
125	R-4	RUDP-2534	Saptakoshi	OPC	Chisang Khola	27-Aug-19	3-Sep-19	24-Sep-19	12.42	M20
126	R-102	RUDP-2535	Saptakoshi	OPC	Chisang Khola	28-Aug-19	4-Sep-19	25-Sep-19	15.87	M20
127	R-3(T3L5)	RUDP-2536	Saptakoshi	OPC	Chisang Khola	28-Aug-19	4-Sep-19	25-Sep-19	16.25	M20
128	R-46	RUDP-2537	Saptakoshi	OPC	Chisang Khola	28-Aug-19	4-Sep-19	25-Sep-19	16.32	M20
129	T3L10F	RUDP-2538	Saptakoshi	OPC	Chisang Khola	29-Aug-19	5-Sep-19	26-Sep-19	15.43	M20
130	Madhumara-yard	RUDP-2539	Saptakoshi	OPC	Chisang Khola	29-Aug-19	5-Sep-19	26-Sep-19	14.31	M20
131	T3L13C	RUDP-2540	Saptakoshi	OPC	Chisang Khola	30-Aug-19	6-Sep-19	27-Sep-19	15.35	M20
132	R-46	RUDP-2541	Saptakoshi	OPC	Chisang Khola	30-Aug-19	6-Sep-19	27-Sep-19	15.15	M20
133	Madhumara-yard	RUDP-2542	Saptakoshi	OPC	Chisang Khola	30-Aug-19	6-Sep-19	27-Sep-19	17.21	M25
134	R-4	RUDP-2543	Saptakoshi	OPC	Chisang Khola	30-Aug-19	6-Sep-19	27-Sep-19	15.43	M20
135	T3(Telecom)	RUDP-2544	Saptakoshi	OPC	Chisang Khola	30-Aug-19	6-Sep-19	27-Sep-19	15.87	M20
136	T3L7B	RUDP-2545	Saptakoshi	OPC	Chisang Khola	30-Aug-19	6-Sep-19	27-Sep-19	16.32	M20
137	T2L19G	RUDP-2546	Saptakoshi	OPC	Chisang Khola	30-Aug-19	6-Sep-19	27-Sep-19	17.36	M20
138	R-4	RUDP-2547	Saptakoshi	OPC	Chisang Khola	30-Aug-19	6-Sep-19	27-Sep-19	10.99	M20
139	R-4	RUDP-2548	Saptakoshi	OPC	Chisang Khola	31-Aug-19	7-Sep-19	28-Sep-19	15.87	M20
140	T3L Trunk line	RUDP-2549	Saptakoshi	OPC	Chisang Khola	31-Aug-19	7-Sep-19	28-Sep-19	15.43	M20
141	Madhumara-yard	RUDP-2550	Saptakoshi	OPC	Chisang Khola	1-Sep-19	8-Sep-19	29-Sep-19	17.14	M25
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 Gireesh Chand				

REGIONAL URBAN DEVELOPMENT PROJECT





Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Concrete Cube Test Report

							Month		September		
							Year		2019		
							Type of Material		Conc. Cube		
							Date of Testing		Strength, N/mm2		
S N	Location	Lab Ref.no	Type of Cement	Brand of Cement	Source of Sand+Agg.	Date of Casting	7 Days	28 Days	7 Days	28 Days	Concrete Grade
142	T2L19H	RUDP-2551	Saptakoshi	OPC	Chisang Khola	1-Sep-19	8-Sep-19	29-Sep-19	15.87	22.29	M20
143	T3L7B	RUDP-2552	Saptakoshi	OPC	Chisang Khola	1-Sep-19	8-Sep-19	29-Sep-19	15.50	22.81	M20
144	T3L13C	RUDP-2553	Saptakoshi	OPC	Chisang Khola	2-Sep-19	9-Sep-19	30-Sep-19	15.65	21.71	M20
145	T2L10A	RUDP-2554	Saptakoshi	OPC	Chisang Khola	2-Sep-19	9-Sep-19	30-Sep-19	16.25	22.33	M20
146	R3(T3L5)	RUDP-2555	Saptakoshi	OPC	Chisang Khola	2-Sep-19	9-Sep-19	30-Sep-19	15.43	21.21	M20
147	R3(T3L5)	RUDP-2556	Saptakoshi	OPC	Chisang Khola	2-Sep-19	9-Sep-19	30-Sep-19	15.87	21.48	M20
148	Madhumara-yard	RUDP-2557	Saptakoshi	OPC	Chisang Khola	2-Sep-19	9-Sep-19	30-Sep-19	18.27	27.24	M25
149	R-4	RUDP-2558	Saptakoshi	OPC	Chisang Khola	2-Sep-19	9-Sep-19	30-Sep-19	14.31		M20
150	T2L19H	RUDP-2559	Saptakoshi	OPC	Chisang Khola	3-Sep-19	10-Sep-19	1-Oct-19	16.32		M20
151	T3L10F	RUDP-2560	Saptakoshi	OPC	Chisang Khola	3-Sep-19	10-Sep-19	1-Oct-19	15.43		M20
152	Madhumara-yard	RUDP-2561	Saptakoshi	OPC	Chisang Khola	3-Sep-19	10-Sep-19	1-Oct-19	17.44		M20
153	T3L7B	RUDP-2562	Saptakoshi	OPC	Chisang Khola	3-Sep-19	10-Sep-19	1-Oct-19	14.82		M20
154	Judi-yard	RUDP-2563	Saptakoshi	OPC	Chisang Khola	3-Sep-19	10-Sep-19	1-Oct-19	16.02		M20
155	R181A	RUDP-2564	Saptakoshi	OPC	Chisang Khola	3-Sep-19	10-Sep-19	1-Oct-19	15.43		M20
156	T3L21	RUDP-2565	Saptakoshi	OPC	Chisang Khola	3-Sep-19	10-Sep-19	1-Oct-19	14.83		M20
157	T3L Trunk Lane	RUDP-2566	Saptakoshi	OPC	Chisang Khola	3-Sep-19	10-Sep-19	1-Oct-19	16.32		M20
158	R-2	RUDP-2567	Saptakoshi	OPC	Chisang Khola	3-Sep-19	10-Sep-19	1-Oct-19	16.32		M20
159	T3L19H	RUDP-2568	Saptakoshi	OPC	Chisang Khola	4-Sep-19	11-Sep-19	2-Oct-19	15.57		M20
160	R-3(T3L5)	RUDP-2569	Saptakoshi	OPC	Chisang Khola	4-Sep-19	11-Sep-19	2-Oct-19	16.47		M20
161	T3L19X	RUDP-2570	Saptakoshi	OPC	Chisang Khola	4-Sep-19	11-Sep-19	2-Oct-19	15.87		M20
162	Judi-yard	RUDP-2571	Saptakoshi	OPC	Chisang Khola	4-Sep-19	11-Sep-19	2-Oct-19	15.35		M20
163	R-3(Telocom)	RUDP-2572	Saptakoshi	OPC	Chisang Khola	4-Sep-19	11-Sep-19	2-Oct-19	16.62		M20
164	Madhumara-yard	RUDP-2573	Saptakoshi	OPC	Chisang Khola	4-Sep-19	11-Sep-19	2-Oct-19	17.36		M25
165	R-46	RUDP-2574	Saptakoshi	OPC	Chisang Khola	4-Sep-19	11-Sep-19	2-Oct-19	14.75		M20
166	T3L10F	RUDP-2575	Saptakoshi	OPC	Chisang Khola	4-Sep-19	11-Sep-19	2-Oct-19	15.21		M20
167	Judi-yard	RUDP-2576	Saptakoshi	OPC	Chisang Khola	4-Sep-19	11-Sep-19	2-Oct-19	15.43		M20
168	T3L13C	RUDP-2577	Saptakoshi	OPC	Chisang Khola	4-Sep-19	11-Sep-19	2-Oct-19	16.32		M20
169	Madhumara-yard	RUDP-2578	Saptakoshi	OPC	Chisang Khola	5-Sep-19	12-Sep-19	3-Oct-19	17.90		M25
170	T3L13C	RUDP-2579	Saptakoshi	OPC	Chisang Khola	5-Sep-19	12-Sep-19	3-Oct-19	15.88		M20
171	T3L13C	RUDP-2580	Saptakoshi	OPC	Chisang Khola	6-Sep-19	13-Sep-19	4-Oct-19	14.76		M20
172	R-4	RUDP-2581	Saptakoshi	OPC	Chisang Khola	6-Sep-19	13-Sep-19	4-Oct-19	15.44		M20
173	R-12	RUDP-2582	Saptakoshi	OPC	Chisang Khola	6-Sep-19	13-Sep-19	4-Oct-19	16.78		M20
174	R-46	RUDP-2583	Saptakoshi	OPC	Chisang Khola	6-Sep-19	13-Sep-19	4-Oct-19	15.73		M20
175	Judi-yard	RUDP-2584	Saptakoshi	OPC	Chisang Khola	6-Sep-19	13-Sep-19	4-Oct-19	16.85		M20
176	T3L10F	RUDP-2585	Saptakoshi	OPC	Chisang Khola	6-Sep-19	13-Sep-19	4-Oct-19	15.58		M20
177	T3L13C	RUDP-2586	Saptakoshi	OPC	Chisang Khola	7-Sep-19	14-Sep-19	5-Oct-19	16.78		M20
178	R-7	RUDP-2587	Saptakoshi	OPC	Chisang Khola	8-Sep-19	15-Sep-19	6-Oct-19	15.36		M20
179	T2L19X	RUDP-2588	Saptakoshi	OPC	Chisang Khola	8-Sep-19	15-Sep-19	6-Oct-19	16.85		M20
180	R-42	RUDP-2589	Saptakoshi	OPC	Chisang Khola	8-Sep-19	15-Sep-19	6-Oct-19	15.88		M20
181	Madhumara-yard	RUDP-2590	Saptakoshi	OPC	Chisang Khola	8-Sep-19	15-Sep-19	6-Oct-19	17.59		M25
182	Madhumara-yard	RUDP-2591	Saptakoshi	OPC	Chisang Khola	8-Sep-19	15-Sep-19	6-Oct-19	18.42		M25
183	R-4	RUDP-2592	Saptakoshi	OPC	Chisang Khola	8-Sep-19	15-Sep-19	6-Oct-19	12.87		M15
184	R-4	RUDP-2593	Saptakoshi	OPC	Chisang Khola	9-Sep-19	16-Sep-19	7-Oct-19	15.57		M20
185	R-2	RUDP-2594	Shalimar Gold	OPC	Chisang Khola	9-Sep-19	16-Sep-19	7-Oct-19	14.75		M20
186	T2L10A	RUDP-2595	Shalimar Gold	OPC	Chisang Khola	9-Sep-19	16-Sep-19	7-Oct-19	15.65		M20
187	T3L10F	RUDP-2596	Shalimar Gold	OPC	Chisang Khola	9-Sep-19	16-Sep-19	7-Oct-19	15.20		M20
188	T3L13C	RUDP-2597	Shalimar Gold	OPC	Chisang Khola	10-Sep-19	17-Sep-19	8-Oct-19	16.32		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, 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 Gireesh 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		September	
							Year		2019	
							Type of Material		Conc. Cube	
							Date of Testing		Strength, N/mm ²	
							7 Days	28 Days	7 Days	28 Days
189	T2L19H	RUDP-2598	Shalimar Gold	OPC	Chisang Khola	10-Sep-19	17-Sep-19	8-Oct-19	15.87	✓
190	T2L19G	RUDP-2599	Shalimar Gold	OPC	Chisang Khola	11-Sep-19	18-Sep-19	9-Oct-19	16.39	✓
191	Judi Yard	RUDP-2600	Shalimar Gold	OPC	Chisang Khola	12-Sep-19	19-Sep-19	10-Oct-19	16.25	✓
192	Judi Yard	RUDP-2601	Shalimar Gold	OPC	Chisang Khola	12-Sep-19	19-Sep-19	10-Oct-19	13.79	✓
193	R-46	RUDP-2602	Shalimar Gold	OPC	Chisang Khola	12-Sep-19	19-Sep-19	10-Oct-19	14.75	✓
194	T3L10A	RUDP-2603	Shalimar Gold	OPC	Chisang Khola	13-Sep-19	20-Sep-19	11-Oct-19	16.62	✓
195	R-181A	RUDP-2604	Shalimar Gold	OPC	Chisang Khola	13-Sep-19	20-Sep-19	11-Oct-19	15.87	✓
196	T3L13C	RUDP-2605	Shalimar Gold	OPC	Chisang Khola	13-Sep-19	20-Sep-19	11-Oct-19	16.69	✓
197	T3L10F	RUDP-2606	Shalimar Gold	OPC	Chisang Khola	14-Sep-19	21-Sep-19	12-Oct-19	15.72	✓
198	T3L13C	RUDP-2607	Shalimar Gold	OPC	Chisang Khola	14-Sep-19	21-Sep-19	12-Oct-19	16.25	✓
199	T3L7B	RUDP-2608	Shalimar Gold	OPC	Chisang Khola	14-Sep-19	21-Sep-19	12-Oct-19	16.32	✓
200	N-38	RUDP-2609	Shalimar Gold	OPC	Chisang Khola	14-Sep-19	21-Sep-19	12-Oct-19	16.92	✓
201	N-38	RUDP-2610	Shalimar Gold	OPC	Chisang Khola	14-Sep-19	21-Sep-19	12-Oct-19	16.62	✓
202	R-181A	RUDP-2611	Shalimar Gold	OPC	Chisang Khola	15-Sep-19	22-Sep-19	13-Oct-19	15.72	✓
203	T3L7B	RUDP-2612	Shalimar Gold	OPC	Chisang Khola	15-Sep-19	22-Sep-19	13-Oct-19	15.87	✓
204	T3L10F	RUDP-2613	Shalimar Gold	OPC	Chisang Khola	15-Sep-19	22-Sep-19	13-Oct-19	16.62	✓
205	Madhumara yard	RUDP-2614	Shalimar Gold	OPC	Chisang Khola	15-Sep-19	22-Sep-19	13-Oct-19	17.36	✓
206	Madhumara yard	RUDP-2615	Shalimar Gold	OPC	Chisang Khola	15-Sep-19	22-Sep-19	13-Oct-19	17.74	✓
207	T3L10F	RUDP-2616	Shalimar Gold	OPC	Chisang Khola	15-Sep-19	22-Sep-19	13-Oct-19	15.06	✓
208	T2L19H	RUDP-2617	Shalimar Gold	OPC	Chisang Khola	15-Sep-19	22-Sep-19	13-Oct-19	15.65	✓
209	R-7	RUDP-2618	Shalimar Gold	OPC	Chisang Khola	15-Sep-19	22-Sep-19	13-Oct-19	17.14	✓
210	R-42	RUDP-2619	Shalimar Gold	OPC	Chisang Khola	15-Sep-19	22-Sep-19	13-Oct-19	15.36	✓
211	T3L10F	RUDP-2620	Shalimar Gold	OPC	Chisang Khola	16-Sep-19	23-Sep-19	14-Oct-19	15.65	✓
212	R-4	RUDP-2621	Shalimar Gold	OPC	Chisang Khola	16-Sep-19	23-Sep-19	14-Oct-19	12.27	✓
213	R-4	RUDP-2622	Shalimar Gold	OPC	Chisang Khola	17-Sep-19	24-Sep-19	15-Oct-19	15.05	✓
214	T2L19H	RUDP-2623	Shalimar Gold	OPC	Chisang Khola	17-Sep-19	24-Sep-19	15-Oct-19	16.10	✓
215	R-42	RUDP-2624	Shalimar Gold	OPC	Chisang Khola	17-Sep-19	24-Sep-19	15-Oct-19	16.62	✓
216	T3L7B	RUDP-2625	Shalimar Gold	OPC	Chisang Khola	17-Sep-19	24-Sep-19	15-Oct-19	15.35	✓
217	Judi Yard	RUDP-2626	Shalimar Gold	OPC	Chisang Khola	17-Sep-19	24-Sep-19	15-Oct-19	16.77	✓
218	T2L10A	RUDP-2627	Shalimar Gold	OPC	Chisang Khola	17-Sep-19	24-Sep-19	15-Oct-19	15.43	✓
219	R-181A	RUDP-2628	Shalimar Gold	OPC	Chisang Khola	18-Sep-19	25-Sep-19	16-Oct-19	15.87	✓
220	T3L13C	RUDP-2629	Shalimar Gold	OPC	Chisang Khola	18-Sep-19	25-Sep-19	16-Oct-19	15.20	✓
221	T3L7B	RUDP-2630	Shalimar Gold	OPC	Chisang Khola	18-Sep-19	25-Sep-19	16-Oct-19	16.32	✓
222	Judi Yard	RUDP-2631	Shalimar Gold	OPC	Chisang Khola	18-Sep-19	25-Sep-19	16-Oct-19	15.35	✓
223	R-3(T3L38)	RUDP-2632	Shalimar Gold	OPC	Chisang Khola	19-Sep-19	26-Sep-19	17-Oct-19	18.27	✓
224	T2L19G	RUDP-2633	Shalimar Gold	OPC	Chisang Khola	19-Sep-19	26-Sep-19	17-Oct-19	15.81	✓
225	R-7	RUDP-2634	Shalimar Gold	OPC	Chisang Khola	19-Sep-19	26-Sep-19	17-Oct-19	14.99	✓
226	R-4	RUDP-2635	Shalimar Gold	OPC	Chisang Khola	19-Sep-19	26-Sep-19	17-Oct-19	11.78	✓
227	R-4	RUDP-2636	Shalimar Gold	OPC	Chisang Khola	19-Sep-19	26-Sep-19	17-Oct-19	11.51	✓
228	T2L19G	RUDP-2637	Shalimar Gold	OPC	Chisang Khola	19-Sep-19	26-Sep-19	17-Oct-19	15.13	✓
229	Madhumara yard	RUDP-2638	Shalimar Gold	OPC	Chisang Khola	19-Sep-19	26-Sep-19	17-Oct-19	17.97	✓
230	T3L7B	RUDP-2639	Shalimar Gold	OPC	Chisang Khola	20-Sep-19	27-Sep-19	18-Oct-19	14.38	✓
231	Judi Yard	RUDP-2640	Shalimar Gold	OPC	Chisang Khola	20-Sep-19	27-Sep-19	18-Oct-19	15.65	✓
232	T3L7A	RUDP-2641	Shalimar Gold	OPC	Chisang Khola	20-Sep-19	27-Sep-19	18-Oct-19	14.75	✓
233	Madhumara yard	RUDP-2642	Shalimar Gold	OPC	Chisang Khola	20-Sep-19	27-Sep-19	18-Oct-19	17.21	✓
234	T3L10F	RUDP-2643	Shalimar Gold	OPC	Chisang Khola	20-Sep-19	27-Sep-19	18-Oct-19	16.69	✓
235	R-4	RUDP-2644	Shalimar Gold	OPC	Chisang Khola	21-Sep-19	28-Sep-19	19-Oct-19	16.32	✓
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				

Summary Sheet of Concrete Cube Test Report



REGIONAL URBAN DEVELOPMENT PROJECT													
Biratnagar Metropolitan City													
Contract No:- RUDP/ICB/BRT-02													
Summary Sheet of Monthly Test Report of 20mm Agg.													
										Month Year	September 2019		
										Type of Material	20 mm Agg		
S.n.	Lab. Ref no.	Date of Testing	Location of Sample	Source of Sample	Sieve Size in mm / % Passing by weight					L.A.A. %	Fl and El %	A.I.V. %	Remarks
					37.5	20	14	10	5				
1	RUDP-CA-409	2-Sep-19	Madhumara Yard	Chising Khola	100.00	97.87	53.46	16.42	2.08		26.10	18.52/17.34	19.28
2	RUDP-CA-410	3-Sep-19	R-4	Chising Khola	100.00	97.33	50.39	15.66	1.63		24.92	19.25/18.04	20.20
3	RUDP-CA-411	4-Sep-19	T3(T3L5)	Chising Khola	100.00	95.80	56.45	17.35	1.67		26.02	18.79/17.59	19.53
4	RUDP-CA-412	5-Sep-19	T2L19X	Chising Khola	100.00	94.43	59.88	17.06	1.69		28.80	18.45/16.27	22.11
5	RUDP-CA-413	6-Sep-19	T3L10F	Chising Khola	100.00	94.68	63.51	9.22	1.38		27.50	18.52/17.63	22.94
6	RUDP-CA-414	7-Sep-19	R-3	Chising Khola	100.00	97.57	57.13	13.68	2.43		25.04	17.69/16.97	21.80
7	RUDP-CA-415	8-Sep-19	R-46	Chising Khola	100.00	95.37	48.94	11.34	2.02		30.10	17.32/16.00	17.54
8	RUDP-CA-416	9-Sep-19	T2L10A	Chising Khola	100.00	95.47	47.99	11.06	2.00		30.10	21.97/17.84	20.08
9	RUDP-CA-417	10-Sep-19	T2L19G	Chising Khola	100.00	96.89	46.23	7.56	2.12		26.10	24.74/15.06	19.98
10	RUDP-CA-418	12-Sep-19	T3L10F	Chising Khola	100.00	95.41	49.63	17.54	1.93		28.70	23.75/16.07	19.83
11	RUDP-CA-419	13-Sep-19	R-181A	Chising Khola	100.00	96.44	39.63	5.65	1.30		28.70	20.06/15.79	20.47
12	RUDP-CA-420	14-Sep-19	R-12	Chising Khola	100.00	95.58	34.27	4.92	1.91		26.98	17.59/13.07	19.03
13	RUDP-CA-421	15-Sep-19	Madhumara Yard	Chising Khola	100.00	96.19	31.00	5.15	2.97		24.70	18.58/17.48	17.88
14	RUDP-CA-422	17-Sep-19	Judi-yard	Chising Khola	100.00	95.58	22.63	3.22	1.37		26.82	17.95/15.10	18.86
15	RUDP-CA-423	18-Sep-19	T3L7C	Chising Khola	100.00	96.81	28.22	2.97	1.11		28.24	18.90/17.17	20.00
16	RUDP-CA-424	19-Sep-19	R-2	Chising Khola	100.00	95.81	29.15	3.74	1.90		30.24	18.03/15.42	19.67
17	RUDP-CA-425	20-Sep-19	R-3(T3L38)	Chising Khola	100.00	96.16	30.46	3.57	1.54		25.08	19.98/15.88	21.70
18	RUDP-CA-426	21-Sep-19	N-38	Chising Khola	100.00	95.61	30.22	3.36	1.41		24.24	20.04/15.86	21.24
19	RUDP-CA-427	22-Sep-19	R-7	Chising Khola	100.00	96.39	30.10	3.45	1.16		26.08	19.80/19.60	21.31
					100	95.76	47.0	0.25	0.5		23.5	19.5	22.5

Contractor ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD  Checked By Engineer Benu Shrestha	Consultant 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
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Biratnagar Metropolitan City

Contract No:- RUUDP/ICB/BRT-02

Summary Sheet of Monthly Test Report of 20mm Agg:

[illegible]

Contractor	Consultant
<p>ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO., LTD</p> 	<p>BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL</p> 
<p>..... Checked By Engineer Benu Shrestha</p>	<p>..... Verified By Expert Qty Surveyor/CSE H.K. Manda/Rajen Shrestha</p> <p>..... Approved By Team Leader Girish Chand</p>

REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Mortar Test Report

							Month		September		
							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/mm ²		Type of Grade
							7 Days	28 Days	7 Days	28 Days	
1	R-46	MR-2167	Saptakoshi	OPC	Chisang Khola	4-Aug-19	11-Aug-19	1-Sep-19		8.38	7.5
2	R-46	MR-2168	Saptakoshi	OPC	Chisang Khola	4-Aug-19	11-Aug-19	1-Sep-19		9.89	7.5
3	T3L Trunk line	MR-2169	Saptakoshi	OPC	Chisang Khola	4-Aug-19	11-Aug-19	1-Sep-19		8.93	7.5
4	R-46	MR-2170	Saptakoshi	OPC	Chisang Khola	4-Aug-19	11-Aug-19	1-Sep-19		8.93	7.5
5	R-46	MR-2171	Saptakoshi	OPC	Chisang Khola	6-Aug-19	13-Aug-19	3-Sep-19		9.07	7.5
6	R-3	MR-2172	Saptakoshi	OPC	Chisang Khola	6-Aug-19	13-Aug-19	3-Sep-19		9.07	7.5
7	T3L Trunk line	MR-2173	Saptakoshi	OPC	Chisang Khola	6-Aug-19	13-Aug-19	3-Sep-19		8.38	7.5
8	T3L Trunk line	MR-2174	Saptakoshi	OPC	Chisang Khola	6-Aug-19	13-Aug-19	3-Sep-19		9.20	7.5
9	R-46	MR-2175	Saptakoshi	OPC	Chisang Khola	6-Aug-19	13-Aug-19	3-Sep-19		8.65	7.5
10	R-46	MR-2176	Saptakoshi	OPC	Chisang Khola	9-Aug-19	16-Aug-19	6-Sep-19		9.89	7.5
11	R-46	MR-2177	Saptakoshi	OPC	Chisang Khola	9-Aug-19	16-Aug-19	6-Sep-19		8.52	7.5
12	T3L Trunk line	MR-2178	Saptakoshi	OPC	Chisang Khola	9-Aug-19	16-Aug-19	6-Sep-19		9.48	7.5
13	R-3	MR-2179	Saptakoshi	OPC	Chisang Khola	9-Aug-19	16-Aug-19	6-Sep-19		9.34	7.5
14	T3L5	MR-2180	Saptakoshi	OPC	Chisang Khola	9-Aug-19	16-Aug-19	6-Sep-19		8.52	7.5
15	R-46	MR-2181	Saptakoshi	OPC	Chisang Khola	10-Aug-19	17-Aug-19	7-Sep-19		8.79	7.5
16	R-3	MR-2182	Saptakoshi	OPC	Chisang Khola	10-Aug-19	17-Aug-19	7-Sep-19		9.20	7.5
17	T3L Trunk line	MR-2183	Saptakoshi	OPC	Chisang Khola	10-Aug-19	17-Aug-19	7-Sep-19		9.75	7.5
18	T3L5	MR-2184	Saptakoshi	OPC	Chisang Khola	10-Aug-19	17-Aug-19	7-Sep-19		9.34	7.5
19	R-46	MR-2185	Saptakoshi	OPC	Chisang Khola	10-Aug-19	17-Aug-19	7-Sep-19		10.03	7.5
20	T3L Trunk line	MR-2186	Saptakoshi	OPC	Chisang Khola	10-Aug-19	17-Aug-19	7-Sep-19		8.52	7.5
21	T3L5	MR-2187	Saptakoshi	OPC	Chisang Khola	13-Aug-19	20-Aug-19	10-Sep-19		9.34	7.5
22	R-46	MR-2188	Saptakoshi	OPC	Chisang Khola	13-Aug-19	20-Aug-19	10-Sep-19		8.79	7.5
23	R-46	MR-2189	Saptakoshi	OPC	Chisang Khola	14-Aug-19	21-Aug-19	11-Sep-19		9.20	7.5
24	R-3	MR-2190	Saptakoshi	OPC	Chisang Khola	14-Aug-19	21-Aug-19	11-Sep-19		8.52	7.5
25	R-3	MR-2191	Saptakoshi	OPC	Chisang Khola	14-Aug-19	21-Aug-19	11-Sep-19		8.79	7.5
26	T3L Trunk line	MR-2192	Saptakoshi	OPC	Chisang Khola	15-Aug-19	22-Aug-19	12-Sep-19		9.20	7.5
27	R-46	MR-2193	Saptakoshi	OPC	Chisang Khola	15-Aug-19	22-Aug-19	12-Sep-19		10.03	7.5
28	T3L5	MR-2194	Saptakoshi	OPC	Chisang Khola	15-Aug-19	22-Aug-19	12-Sep-19		9.07	7.5
29	T3L Trunk line	MR-2195	Saptakoshi	OPC	Chisang Khola	15-Aug-19	22-Aug-19	12-Sep-19		8.93	7.5
30	R-3	MR-2196	Saptakoshi	OPC	Chisang Khola	15-Aug-19	22-Aug-19	12-Sep-19		10.99	7.5
31	R-181A	MR-2197	Saptakoshi	OPC	Chisang Khola	15-Aug-19	22-Aug-19	12-Sep-19		10.17	7.5
32	T3L19G	MR-2198	Saptakoshi	OPC	Chisang Khola	15-Aug-19	22-Aug-19	12-Sep-19		9.07	7.5
33	T3L5	MR-2199	Saptakoshi	OPC	Chisang Khola	17-Aug-19	24-Aug-19	14-Sep-19		8.24	7.5
34	R-46	MR-2200	Saptakoshi	OPC	Chisang Khola	20-Jul-19	27-Jul-19	17-Aug-19		8.93	7.5
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 Kr. Thakur					
Verified By Expert Qty Surveyor/CSE H.K. Mandal/Rajan Shrestha						Approved By Team Leader Giresch Chand					

REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Mortar Test Report

							Month		September	
							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/mm ²	Type of Grade
							7 Days	28 Days		
							7 Days	28 Days		
35	T3L Trunk line	MR-2201	Saptakoshi	OPC	Chisang Khola	17-Aug-19	24-Aug-19	14-Sep-19	8.52	7.5
36	T3L5	MR-2202	Saptakoshi	OPC	Chisang Khola	17-Aug-19	24-Aug-19	14-Sep-19	9.20	7.5
37	T3L5	MR-2203	Saptakoshi	OPC	Chisang Khola	18-Aug-19	25-Aug-19	15-Sep-19	9.48	7.5
38	T3L5	MR-2204	Saptakoshi	OPC	Chisang Khola	18-Aug-19	25-Aug-19	15-Sep-19	9.89	7.5
39	T3L Trunk line	MR-2205	Saptakoshi	OPC	Chisang Khola	18-Aug-19	25-Aug-19	15-Sep-19	9.34	7.5
40	R-181A	MR-2206	Saptakoshi	OPC	Chisang Khola	20-Aug-19	27-Aug-19	17-Sep-19	9.62	7.5
41	R-3	MR-2207	Saptakoshi	OPC	Chisang Khola	20-Aug-19	27-Aug-19	17-Sep-19	8.79	7.5
42	T3L Trunk line	MR-2208	Saptakoshi	OPC	Chisang Khola	20-Aug-19	27-Aug-19	17-Sep-19	10.30	7.5
43	T3L5	MR-2209	Saptakoshi	OPC	Chisang Khola	22-Aug-19	29-Aug-19	19-Sep-19	9.48	7.5
44	R-181A	MR-2210	Saptakoshi	OPC	Chisang Khola	22-Aug-19	29-Aug-19	19-Sep-19	8.52	7.5
45	R-3	MR-2211	Saptakoshi	OPC	Chisang Khola	22-Aug-19	29-Aug-19	19-Sep-19	8.65	7.5
46	T3L Trunk line	MR-2212	Saptakoshi	OPC	Chisang Khola	22-Aug-19	29-Aug-19	19-Sep-19	8.52	7.5
47	R-181A	MR-2213	Saptakoshi	OPC	Chisang Khola	24-Aug-19	31-Aug-19	21-Sep-19	9.75	7.5
48	R-3	MR-2214	Saptakoshi	OPC	Chisang Khola	24-Aug-19	31-Aug-19	21-Sep-19	8.38	7.5
49	T3L Trunk line	MR-2215	Saptakoshi	OPC	Chisang Khola	24-Aug-19	31-Aug-19	21-Sep-19	9.64	7.5
50	T3L5	MR-2216	Saptakoshi	OPC	Chisang Khola	24-Aug-19	31-Aug-19	21-Sep-19	8.38	7.5
51	T2L19H	MR-2217	Saptakoshi	OPC	Chisang Khola	26-Aug-19	2-Sep-19	23-Sep-19	5.87	8.24
52	R-3(T3L5)	MR-2218	Saptakoshi	OPC	Chisang Khola	26-Aug-19	2-Sep-19	23-Sep-19	6.29	8.10
53	T2L19X	MR-2219	Saptakoshi	OPC	Chisang Khola	26-Aug-19	2-Sep-19	23-Sep-19	5.59	7.69
54	T3L10F	MR-2220	Saptakoshi	OPC	Chisang Khola	26-Aug-19	2-Sep-19	23-Sep-19	5.87	8.66
55	R-3(Telecom)	MR-2221	Saptakoshi	OPC	Chisang Khola	26-Aug-19	2-Sep-19	23-Sep-19	5.59	8.24
56	R-46	MR-2222	Saptakoshi	OPC	Chisang Khola	27-Aug-19	3-Sep-19	24-Sep-19	5.87	9.50
57	T2L10A	MR-2223	Saptakoshi	OPC	Chisang Khola	27-Aug-19	3-Sep-19	24-Sep-19	5.59	9.08
58	T3L10F	MR-2224	Saptakoshi	OPC	Chisang Khola	28-Aug-19	4-Sep-19	25-Sep-19	5.45	8.52
59	R-181A	MR-2225	Saptakoshi	OPC	Chisang Khola	28-Aug-19	4-Sep-19	25-Sep-19	6.99	9.50
60	T2L10A	MR-2226	Saptakoshi	OPC	Chisang Khola	28-Aug-19	4-Sep-19	25-Sep-19	6.01	8.10
61	R-3(Telecom)	MR-2227	Saptakoshi	OPC	Chisang Khola	29-Aug-19	5-Sep-19	26-Sep-19	6.43	8.52
62	R-181A	MR-2228	Saptakoshi	OPC	Chisang Khola	29-Aug-19	5-Sep-19	26-Sep-19	6.71	9.92
63	R-46	MR-2229	Saptakoshi	OPC	Chisang Khola	29-Aug-19	5-Sep-19	26-Sep-19	6.01	8.94
64	T2L19G	MR-2230	Saptakoshi	OPC	Chisang Khola	29-Aug-19	5-Sep-19	26-Sep-19	6.43	9.50
65	T3L Trunk line	MR-2231	Saptakoshi	OPC	Chisang Khola	29-Aug-19	5-Sep-19	26-Sep-19	6.01	8.80
66	R-181A	MR-2232	Saptakoshi	OPC	Chisang Khola	30-Aug-19	6-Sep-19	27-Sep-19	6.99	9.22
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 Kr. Thakur			
 Verified By Expert Qty Surveyor/CSE H.K. Mandal/Rajan Shrestha							 Approved By Team Leader Giresch Chand			

REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Mortar Test Report

							Month		September		
							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/mm ²		Type of Grade
							7 Days	28 Days	7 Days	28 Days	
67	T2L19X	MR-2233	Saptakoshi	OPC	Chisang Khola	31-Aug-19	7-Sep-19	28-Sep-19	6.85	9.78	7.5
68	T2L19G	MR-2234	Saptakoshi	OPC	Chisang Khola	31-Aug-19	7-Sep-19	28-Sep-19	6.15	8.52	7.5
69	T3L10F	MR-2235	Saptakoshi	OPC	Chisang Khola	1-Sep-19	8-Sep-19	29-Sep-19	6.71	8.80	7.5
70	T2L19H	MR-2236	Saptakoshi	OPC	Chisang Khola	2-Sep-19	9-Sep-19	30-Sep-19	6.01	8.80	7.5
71	R-3(Telcom)	MR-2237	Saptakoshi	OPC	Chisang Khola	2-Sep-19	9-Sep-19	30-Sep-19	5.59	8.52	7.5
72	R-46	MR-2238	Saptakoshi	OPC	Chisang Khola	2-Sep-19	9-Sep-19	30-Sep-19	6.01	8.80	7.5
73	R-46	MR-2239	Saptakoshi	OPC	Chisang Khola	3-Sep-19	10-Sep-19	1-Oct-19	6.99	✓	7.5
74	T3L10F	MR-2240	Saptakoshi	OPC	Chisang Khola	3-Sep-19	10-Sep-19	1-Oct-19	6.01		7.5
75	R-46	MR-2241	Saptakoshi	OPC	Chisang Khola	4-Sep-19	11-Sep-19	2-Oct-19	6.99		7.5
76	T3L7B	MR-2242	Saptakoshi	OPC	Chisang Khola	4-Sep-19	11-Sep-19	2-Oct-19	6.57		7.5
77	T2L19X	MR-2243	Saptakoshi	OPC	Chisang Khola	4-Sep-19	11-Sep-19	2-Oct-19	6.71		7.5
78	R-3(T3L5)	MR-2244	Saptakoshi	OPC	Chisang Khola	4-Sep-19	11-Sep-19	2-Oct-19	6.43		7.5
79	T3L10F	MR-2245	Saptakoshi	OPC	Chisang Khola	4-Sep-19	11-Sep-19	2-Oct-19	5.73		7.5
80	T3L7B	MR-2246	Shalimar Gold	OPC	Chisang Khola	5-Sep-19	12-Sep-19	3-Oct-19	6.15		7.5
81	T2L19H	MR-2247	Shalimar Gold	OPC	Chisang Khola	5-Sep-19	12-Sep-19	3-Oct-19	6.01		7.5
82	R-3(Telcom)	MR-2248	Shalimar Gold	OPC	Chisang Khola	5-Sep-19	12-Sep-19	3-Oct-19	6.99		7.5
83	T2L19G	MR-2249	Shalimar Gold	OPC	Chisang Khola	5-Sep-19	12-Sep-19	3-Oct-19	6.85		7.5
84	R-46	MR-2250	Shalimar Gold	OPC	Chisang Khola	6-Sep-19	13-Sep-19	4-Oct-19	6.43		7.5
85	T2L19X	MR-2251	Shalimar Gold	OPC	Chisang Khola	7-Sep-19	14-Sep-19	5-Oct-19	6.85		7.5
86	T3L7B	MR-2252	Shalimar Gold	OPC	Chisang Khola	8-Sep-19	15-Sep-19	6-Oct-19	6.43		7.5
87	R-181A	MR-2253	Shalimar Gold	OPC	Chisang Khola	8-Sep-19	15-Sep-19	6-Oct-19	6.01		7.5
88	T3L7B	MR-2254	Shalimar Gold	OPC	Chisang Khola	9-Sep-19	16-Sep-19	7-Oct-19	5.87		7.5
89	T3L10F	MR-2255	Shalimar Gold	OPC	Chisang Khola	9-Sep-19	16-Sep-19	7-Oct-19	6.15		7.5
90	T2L19X	MR-2256	Shalimar Gold	OPC	Chisang Khola	9-Sep-19	16-Sep-19	7-Oct-19	6.99		7.5
91	T2L19X	MR-2257	Shalimar Gold	OPC	Chisang Khola	10-Sep-19	17-Sep-19	8-Oct-19	6.43		7.5
92	R-181A	MR-2258	Shalimar Gold	OPC	Chisang Khola	11-Sep-19	18-Sep-19	9-Oct-19	6.57		7.5
93	T2L19H	MR-2259	Shalimar Gold	OPC	Chisang Khola	12-Sep-19	19-Sep-19	10-Oct-19	5.73		7.5
94	R-3(Telcom)	MR-2260	Shalimar Gold	OPC	Chisang Khola	12-Sep-19	19-Sep-19	10-Oct-19	6.85		7.5
95	T2L19H	MR-2261	Shalimar Gold	OPC	Chisang Khola	13-Sep-19	20-Sep-19	11-Oct-19	6.15		7.5
96	R-46	MR-2262	Shalimar Gold	OPC	Chisang Khola	14-Sep-19	21-Sep-19	12-Oct-19	6.43		7.5
97	R-3(Telcom)	MR-2263	Shalimar Gold	OPC	Chisang Khola	14-Sep-19	21-Sep-19	12-Oct-19	6.99		7.5
98	T2L19H	MR-2264	Shalimar Gold	OPC	Chisang Khola	15-Sep-19	22-Sep-19	13-Oct-19	6.85		7.5
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							 Verified By Expert Qty Surveyor/CSE H.K. Mandal/Rajan Shrestha				
 Submitted By Contract Manager Rabindra Kr. Thakur							 Approved By Team Leader Giresh Chand				

REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Mortar Test Report

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REGIONAL URBAN DEVELOPMENT PROJECT

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

Summary Sheet of Monthly Test Report of Concrete Sand

Month Year		September 2019	
Type of Material		Cancrete Sand	

S.n.	Lab.Ref no.	Date of Testing	Location of Sample	Source of Sample	Sieve Size in mm / % Passing by weight							Clay Content%	Remarks	
					10	5.0	2.36	1.18	0.600	0.300	0.150			
1	RUDP-CS-441	2-Sep-19	T2L19H	Chisang Khola	100.00	95.31	81.36	53.71	17.11	8.43	3.95	1.57		
2	RUDP-CS-442	3-Sep-19	R-4	Chisang Khola	100.00	92.77	77.31	55.19	30.16	10.42	4.71	1.21		
3	RUDP-CS-443	5-Sep-19	R-3(T3L5)	Chisang Khola	100.00	92.77	74.80	52.82	29.96	9.89	4.15	1.47		
4	RUDP-CS-444	6-Sep-19	T2L19X	Chisang Khola	100.00	92.97	74.71	53.40	30.68	10.44	4.26	1.10		
5	RUDP-CS-445	6-Sep-19	R-46	Chisang Khola	100.00	92.72	75.66	54.46	32.71	11.69	4.78	1.40		
6	RUDP-CS-446	6-Sep-19	T3(Telecom)	Chisang Khola	100.00	92.46	76.28	54.94	32.77	12.16	4.89	1.44		
7	RUDP-CS-447	6-Sep-19	R-46	Chisang Khola	100.00	92.62	72.67	53.48	30.89	12.35	4.69	1.64		
8	RUDP-CS-448	6-Sep-19	T2L10A	Chisang Khola	100.00	95.01	77.47	55.51	31.99	11.45	4.71	1.54		
9	RUDP-CS-449	6-Sep-19	T2L19G	Chisang Khola	100.00	96.05	83.10	51.53	43.87	9.14	4.17	1.21		
10	RUDP-CS-450	6-Sep-19	T3L10F	Chisang Khola	100.00	94.99	77.44	54.84	31.94	11.47	5.25	1.03		
11	RUDP-CS-451	7-Sep-19	T3L10F	Chisang Khola	100.00	94.92	77.27	54.64	31.90	11.54	5.47	1.20		
12	RUDP-CS-452	7-Sep-19	R-12	Chisang Khola	100.00	94.53	76.73	53.56	32.35	12.24	5.37	1.11		
13	RUDP-CS-453	7-Sep-19	T3L7C	Chisang Khola	100.00	93.98	73.70	52.39	32.22	12.58	5.03	1.92		
14	RUDP-CS-454	9-Sep-19	R-2	Chisang Khola	100.00	94.59	87.12	62.09	35.66	16.22	6.38	1.18		
15	RUDP-CS-455	9-Sep-19	R-3(T3L38)	Chisang Khola	100.00	94.90	87.51	63.87	39.44	19.44	10.92	1.28		
16	RUDP-CS-456	9-Sep-19	Madhumara-Yard	Chisang Khola	100.00	95.01	86.97	61.33	34.84	15.04	5.18	1.55		
17	RUDP-CS-457	10-Sep-19	Judi Yard	Chisang Khola	100.00	94.40	85.83	60.22	33.76	13.99	5.17	0.80		
18	RUDP-CS-458	11-Sep-19	N-38	Chisang Khola	100.00	94.85	84.68	98.19	36.10	13.37	5.59	0.88		
19	RUDP-CS-459	11-Sep-19	R-7	Chisang Khola	100.00	95.35	84.87	97.40	34.00	13.32	5.24	0.90		
20	RUDP-CS-460	11-Sep-19	R-41	Chisang Khola	100.00	94.99	86.42	60.66	42.97	23.94	4.84	0.95		
Spec. Limit :					100	89-100	60-100	30-100	15-100	5-70	0-15	<3%		
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									
<div>Checked By Engineer Denu Shrestha</div>					<div>Submitted By Contract Manager Rabindra K. Thakur</div>					<div>Verified By Expert Qty Surveyor/CSE H.K. Mandal/Rajan Shrestha</div>				
										<div>Approved By Team Leader Giresh Chand</div>				



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City
Contract No:- RUDP/ICB/BRT-02
Summary Sheet of Monthly Test Report of Concrete Sand

S.n.	Lab.Ref no.	Date of Testing	Location of Sample	Source of Sample	Sieve Size in mm / % Passing by weight							Clay Content%	Remarks
					10	5.0	2.36	1.18	0.600	0.300	0.150		
21	RUDP-CS-461	12-Sep-19	R-9	Chisang Khola	100.00	95.16	86.01	63.86	46.96	29.02	8.79	1.27	Concrete Sand
22	RUDP-CS-462	13-Sep-19	T3L7A	Chisang Khola	100.00	93.96	82.84	97.45	37.61	15.87	5.43	1.49	
23	RUDP-CS-463	13-Sep-19	R-42	Chisang Khola	100.00	92.79	65.15	55.43	29.82	18.88	7.21	1.51	
24	RUDP-CS-464	15-Sep-19	R-102	Chisang Khola	100.00	91.42	70.52	58.53	28.39	17.40	7.08	1.25	
25	RUDP-CS-465	15-Sep-19	T3L13C	Chisang Khola	100.00	91.32	74.04	58.89	27.35	18.84	7.78	1.14	
26	RUDP-CS-466	15-Sep-19	T3L19H	Chisang Khola	100.00	94.75	69.92	60.92	29.99	18.84	7.50	1.70	
27	RUDP-CS-467	15-Sep-19	R-2	Chisang Khola	100.00	91.69	63.00	53.71	30.89	20.78	7.74	1.06	
28	RUDP-CS-468	16-Sep-19	R-4	Chisang Khola	100.00	92.30	64.75	53.55	32.33	22.53	6.48	1.37	
29	RUDP-CS-469	16-Sep-19	R-3(T3L5)	Chisang Khola	100.00	91.04	69.01	56.72	37.84	25.11	7.46	1.79	
30	RUDP-CS-470	16-Sep-19	R-102	Chisang Khola	100.00	91.63	70.44	57.34	31.13	16.85	7.49	1.45	
31	RUDP-CS-471	17-Sep-19	T3L10F	Chisang Khola	100.00	93.53	81.53	67.41	38.00	21.41	9.41	1.13	
32	RUDP-CS-472	17-Sep-19	R-3(Telecom)	Chisang Khola	100.00	89.81	71.03	45.95	32.67	22.18	9.99	1.99	
33	RUDP-CS-473	17-Sep-19	R-46	Chisang Khola	100.00	91.53	75.91	45.01	27.58	16.43	7.96	1.03	
34	RUDP-CS-474	16-Sep-19	T2L10A	Chisang Khola	100.00	97.29	68.74	54.94	35.32	22.33	8.53	1.59	
35	RUDP-CS-475	18-Sep-19	R-4	Chisang Khola	100.00	92.97	72.21	63.52	33.33	24.65	8.19	1.27	
36	RUDP-CS-476	18-Sep-19	T3L10F	Chisang Khola	100.00	91.79	67.54	57.39	37.10	26.96	7.73	1.79	
37	RUDP-CS-477	18-Sep-19	R-181A	Chisang Khola	100.00	91.15	78.56	48.28	23.95	13.51	6.06	1.48	
38	RUDP-CS-478	18-Sep-19	R-4	Chisang Khola	100.00	93.46	74.35	52.72	29.28	14.19	4.63	1.28	
39	RUDP-CS-479	18-Sep-19	R-12	Chisang Khola	100.00	93.46	74.35	52.72	29.28	14.19	4.63	1.28	
40	RUDP-CS-480	18-Sep-19	T3L13C	Chisang Khola	100.00	93.33	61.93	42.51	26.57	16.91	8.21	1.48	
Spec. Limit :					100	89-100	60-100	30-100	15-100	5-70	0-15	<3%	

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 K. Thakur

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

Approved By
Team Leader
Gireesh Chandra



REGIONAL URBAN DEVELOPMENT PROJECT

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

Summary Sheet of Monthly Test Report of Concrete Sand

S.n.	Lab. Ref. no.	Date of Testing	Location of Sample	Source of Sample	Sieve Size in mm / % Passing by weight							Clay Content%	Remarks
					10	5.0	2.36	1.18	0.600	0.300	0.150		
					100.00	91.01	79.72	53.34	22.07	13.45	7.06		
41	RUDP-CS-481	18-Sep-19	T3L7C	Chisang Khola	100.00	93.28	78.13	53.36	20.67	12.88	7.22	1.19	
42	RUDP-CS-482	18-Sep-19	R-4	Chisang Khola	100.00	91.52	81.56	54.50	21.89	12.53	6.43	1.13	
43	RUDP-CS-483	18-Sep-19	T3L13C	Chisang Khola	100.00	92.55	80.45	54.93	20.17	11.48	5.34	1.42	
44	RUDP-CS-484	19-Sep-19	R-4	Chisang Khola	100.00	92.65	73.36	59.91	24.13	14.80	6.82	1.05	
45	RUDP-CS-485	19-Aug-19	R-3	Chisang Khola	100.00	95.23	67.69	35.46	22.13	14.54	7.67	1.12	
46	RUDP-CS-486	19-Sep-19	Judi-yard	Chisang Khola	100.00	93.96	63.31	33.10	23.91	15.24	7.44	1.15	
47	RUDP-CS-487	19-Sep-19	Madhumara-yard	Chisang Khola	100.00	94.13	76.83	55.35	40.25	29.25	8.39	1.49	
48	RUDP-CS-488	20-Sep-19	N-38	Chisang Khola	100.00	91.55	68.86	50.89	36.21	25.00	8.63	1.71	
49	RUDP-CS-489	20-Sep-19	R-7	Chisang Khola	100.00	92.48	63.07	47.88	28.97	14.45	6.70	1.42	
50	RUDP-CS-490	21-Sep-19	T3L7C	Chisang Khola	100.00	92.64	66.10	51.09	35.79	14.89	5.18	1.62	
51	RUDP-CS-491	21-Sep-19	T2L19G	Chisang Khola	100.00	93.30	66.41	50.82	35.39	18.71	7.01	1.41	
52	RUDP-CS-492	21-Sep-19	R18A	Chisang Khola	100.00	94.41	62.83	50.28	33.77	18.79	7.94	1.78	
53	RUDP-CS-493	21-Sep-19	R-4	Chisang Khola	100.00	93.70	73.37	45.85	30.30	15.95	2.71	1.96	
54	RUDP-CS-494	22-Sep-19	T3L7C	Chisang Khola	100.00	94.13	74.71	51.76	42.28	24.30	5.78	2.30	
55	RUDP-CS-495	22-Sep-19	T3L10F	Chisang Khola	100.00	94.13	74.71	51.76	42.28	24.30	5.78	2.30	
56	RUDP-CS-496	23-Sep-19	T2L10A	Chisang Khola	100.00	95.30	74.79	42.98	34.54	22.35	8.44	2.05	
57	RUDP-CS-497	23-Sep-19	T2L19H	Chisang Khola	100.00	92.49	70.02	35.38	27.50	16.13	8.73	1.21	
58	RUDP-CS-498	23-Sep-19	T2L19H	Chisang Khola	100.00	90.76	69.06	40.24	33.73	18.60	6.51	1.05	
60	RUDP-CS-499	24-Sep-19	T3L13C	Chisang Khola	100.00	89-100	60-100	30-100	15-100	5-70	0-15	<3%	

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 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 Monthly Test Report of Concrete Sand

Month Year		September 2019	
Type of Material		Concrete Sand	

S.n.	Lab.Ref no.	Date of Testing	Location of Sample	Source of Sample	Sieve Size in mm / % Passing by weight								Clay Content%	Remarks
					10	5.0	2.36	1.18	0.600	0.300	0.150			
61	RUDP-CS-500	25-Sep-19	T2L18G	Chisang Khola	100.00	93.31	71.06	44.87	35.05	21.99	10.52	1.62		
62	RUDP-CS-501	25-Sep-19	T2L10A	Chisang Khola	100.00	92.97	81.32	54.79	37.28	22.40	12.41	1.50		
63	RUDP-CS-502	26-Sep-19	T2L19G	Chisang Khola	100.00	95.63	79.92	63.13	36.17	21.80	9.77	1.42		
64	RUDP-CS-503	27-Sep-19	T3L10F	Chisang Khola	100.00	96.49	77.32	57.42	34.58	19.09	10.93	1.84		
65	RUDP-CS-504	28-Sep-19	T2L19H	Chisang Khola	100.00	91.54	63.74	47.22	25.79	14.10	6.45	1.77		
66	RUDP-CS-505	29-Sep-19	T3L7B	Chisang Khola	100.00	92.85	68.37	44.13	24.10	13.18	5.72	1.50		
67	RUDP-CS-506	29-Sep-19	Judi Yard	Chisang Khola	100.00	93.47	65.89	55.11	36.58	8.95	3.68	1.27		
Spec. Limit :					100	89-100	60-100	30-100	15-100	5-70	0-15	<3%		


Contractor

ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL
ENGINEERING CO. LTD

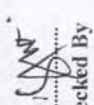


Consultant


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



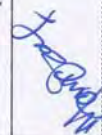
Checked By
Engineer
Benu Shrestha




Submitted By
Contract Manager
Rabindra K. Thakur


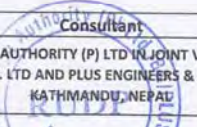
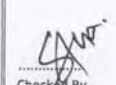
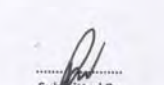

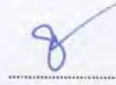


Verified By
Expert Qty Surveyor/CSE
H.K. Mandal/Raian Shrestha



Approved By
Team Leader
Gireesh Chand



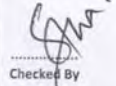



REGIONAL URBAN DEVELOPMENT PROJECT								
Biratnagar Metropolitan City								
Contract No:- RUDP/ICB/BRT-02								
Summary Sheet Of Monthly Test Report								
							Month Year September 2019	
							Type of Material Brick	
S.N.	Lab Ref. No.	Testing Date	Location of Sample	Source of Brick	Name of Brick	Water Absorption of Brick(%)	Strength of Brick(N/mm ²)	Remarks
1	751	2-Sep-19	T2L19H	Dadarbairya	ACC	14.78	14.15	
2	752	2-Sep-19	R-3(T3L5)	Dadarbairya	ACC	15.04	14.23	
3	753	2-Sep-19	T2L19X	Dadarbairya	ACC	14.85	14.59	
4	754	2-Sep-19	T2L19X	Dadarbairya	ANAND	14.29	16.50	
5	755	2-Sep-19	T2L10F	Dadarbairya	ANAND	14.41	13.48	
6	756	3-Sep-19	R-3(Telecom)	Dadarbairya	ANAND	13.19	13.71	
7	757	3-Sep-19	R-46	Dadarbairya	ANAND	16.23	15.20	
8	758	3-Sep-19	T2L19G	Dadarbairya	ANAND	17.08	14.77	
9	759	3-Sep-19	T3L10F	Dadarbairya	ACC	12.52	14.73	
10	760	4-Sep-19	R-181A	Dadarbairya	ACC	15.36	14.80	
11	761	4-Sep-19	T3L13C	Dadarbairya	ACC	14.65	15.46	
12	762	4-Sep-19	T3L7C	Dadarbairya	ACC	13.99	14.55	
13	763	5-Sep-19	T2L10F	Dadarbairya	ACC	16.79	13.73	
14	764	5-Sep-19	T2L19H	Dadarbairya	ACC	14.15	15.41	
15	765	5-Sep-19	T2L19X	Dadarbairya	ACC	13.78	13.61	
16	766	5-Sep-19	R-3(T3L5)	Dadarbairya	ACC	14.13	14.91	
17	767	6-Sep-19	T2L19G	Dadarbairya	ACC	13.48	13.45	
18	768	6-Sep-19	R-3(Telecom)	Dadarbairya	ANAND	12.54	13.71	
19	769	6-Sep-19	T2L19A	Dadarbairya	ANAND	12.59	14.19	
20	770	6-Sep-19	R-46	Dadarbairya	ANAND	13.25	13.32	
21	771	7-Sep-19	T3L7C	Dadarbairya	ANAND	14.16	13.37	
22	772	7-Sep-19	T2L10F	Dadarbairya	ANAND	14.39	13.62	
23	773	7-Sep-19	T3L13C	Dadarbairya	ANAND	13.26	13.84	
24	774	7-Sep-19	R-181A	Dadarbairya	ANAND	15.82	13.36	
25	775	8-Sep-19	T2L19H	Dadarbairya	ACC	13.38	14.45	
26	776	8-Sep-19	T2L19X	Dadarbairya	ACC	14.84	13.86	
27	777	8-Sep-19	R-3(Telecom)	Dadarbairya	ACC	13.86	12.72	
28	778	8-Sep-19	T3L10F	Dadarbairya	ACC	14.55	14.27	
29	779	9-Sep-19	R-46	Dadarbairya	ACC	14.50	14.54	
30	780	9-Sep-19	R-3	Dadarbairya	ACC	14.87	15.40	
31	781	9-Sep-19	T2L10A	Dadarbairya	ACC	13.14	16.12	
32	782	9-Sep-19	T2L19G	Dadarbairya	ACC	13.47	15.20	
33	783	10-Sep-19	T3L10F	Dadarbairya	ACC	14.19	15.72	
Sp. Limit						<20%	>8 to 10 N/mm ²	
Comments:-								
								
								
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 Giresh Chand				

REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet Of Monthly Test Report

S.N.	Lab Ref.N o.	Testing Date	Location of Sample	Source of Brick	Name of Brick	Water Absorption of Brick(%)	Strength of Brick(N/mm ²)	Remarks
							Month Year	September 2019
							Type of Material	Brick
34	784	10-Sep-19	T3L7B	Dadarbairya	ACC	10.83	15.25	
35	785	10-Sep-19	T3L13C	Dadarbairya	ACC	13.13	14.53	
36	786	10-Sep-19	R-181A	Dadarbairya	ACC	13.23	15.88	
37	787	11-Sep-19	R-3(Telecom)	Dadarbairya	ACC	14.61	15.55	
38	788	11-Sep-19	R-46	Dadarbairya	ACC	12.72	15.45	
39	789	11-Sep-19	T2L10F	Dadarbairya	ACC	13.38	14.16	
40	790	11-Sep-19	T2L19G	Dadarbairya	ACC	12.92	13.98	
41	791	12-Sep-19	T3L10F	Dadarbairya	ACC	12.96	13.83	
42	792	13-Sep-19	R-181A	Dadarbairya	ACC	12.98	13.64	
43	793	13-Sep-19	T3L13C	Dadarbairya	ACC	13.20	13.91	
44	794	13-Sep-19	T3L7B	Dadarbairya	ACC	15.48	13.91	
45	795	13-Sep-19	T2L19H	Dadarbairya	ACC	17.88	12.49	
46	796	13-Sep-19	R-3(T3L5)	Dadarbairya	ANAND	12.46	14.46	
47	797	13-Sep-19	T2L19X	Dadarbairya	ANAND	14.82	14.27	
48	798	13-Sep-19	T3L10F	Dadarbairya	ANAND	12.61	14.31	
49	799	13-Sep-19	R-46	Dadarbairya	ANAND	13.42	15.09	
50	800	14-Sep-19	T2L10A	Dadarbairya	ANAND	15.29	14.85	
51	801	14-Sep-19	T3L7B	Dadarbairya	ANAND	13.71	13.89	
52	802	15-Sep-19	T2L19H	Dadarbairya	ANAND	14.39	13.81	
53	803	15-Sep-19	R-3(T3L5)	Dadarbairya	ANAND	15.12	13.58	
54	804	15-Sep-19	T2L19X	Dadarbairya	ANAND	17.21	13.82	
55	805	15-Sep-19	T3L10F	Dadarbairya	ANAND	14.12	15.35	
56	806	15-Sep-19	R-3(Telecom)	Dadarbairya	ANAND	15.18	14.49	
57	807	16-Sep-19	R-46	Dadarbairya	ANAND	15.27	13.40	
58	808	16-Sep-19	T2L19G	Dadarbairya	ANAND	14.77	14.08	
59	809	16-Sep-19	T3L10F	Dadarbairya	ANAND	13.15	14.48	
60	810	16-Sep-19	R-181A	Dadarbairya	ANAND	14.78	12.52	
61	811	17-Sep-19	T3L13C	Dadarbairya	ACC	12.51	12.11	
62	812	17-Sep-19	T3L7B	Dadarbairya	ACC	14.92	12.13	
63	813	18-Sep-19	R-3(Telecom)	Dadarbairya	ACC	16.36	13.29	
64	814	18-Sep-19	R-46	Dadarbairya	ACC	15.73	12.73	
65	815	18-Sep-19	T2L10A	Dadarbairya	ACC	15.26	11.80	
66	816	19-Sep-19	T2L19H	Dadarbairya	ACC	15.63	13.07	
Sp. Limit						<20%	>8 to 10 N/mm ²	
Comments:-								
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 Beniu Shrestha					 Verified By Expert Qty Surveyor/CSE H.K. Mandal/Rajan Shrestha			
 Submitted By Contract Manager Rabindra Kr. Thakur					 Approved By Team Leader Giresh Chand			



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



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

SUMMARY SHEET OF CEMENT TEST

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Comments:-

Contractor

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 Kr. Thakur

Verified By
Export Qty Surveyor/CSE
H.K. Manda/Rajana Shrestha

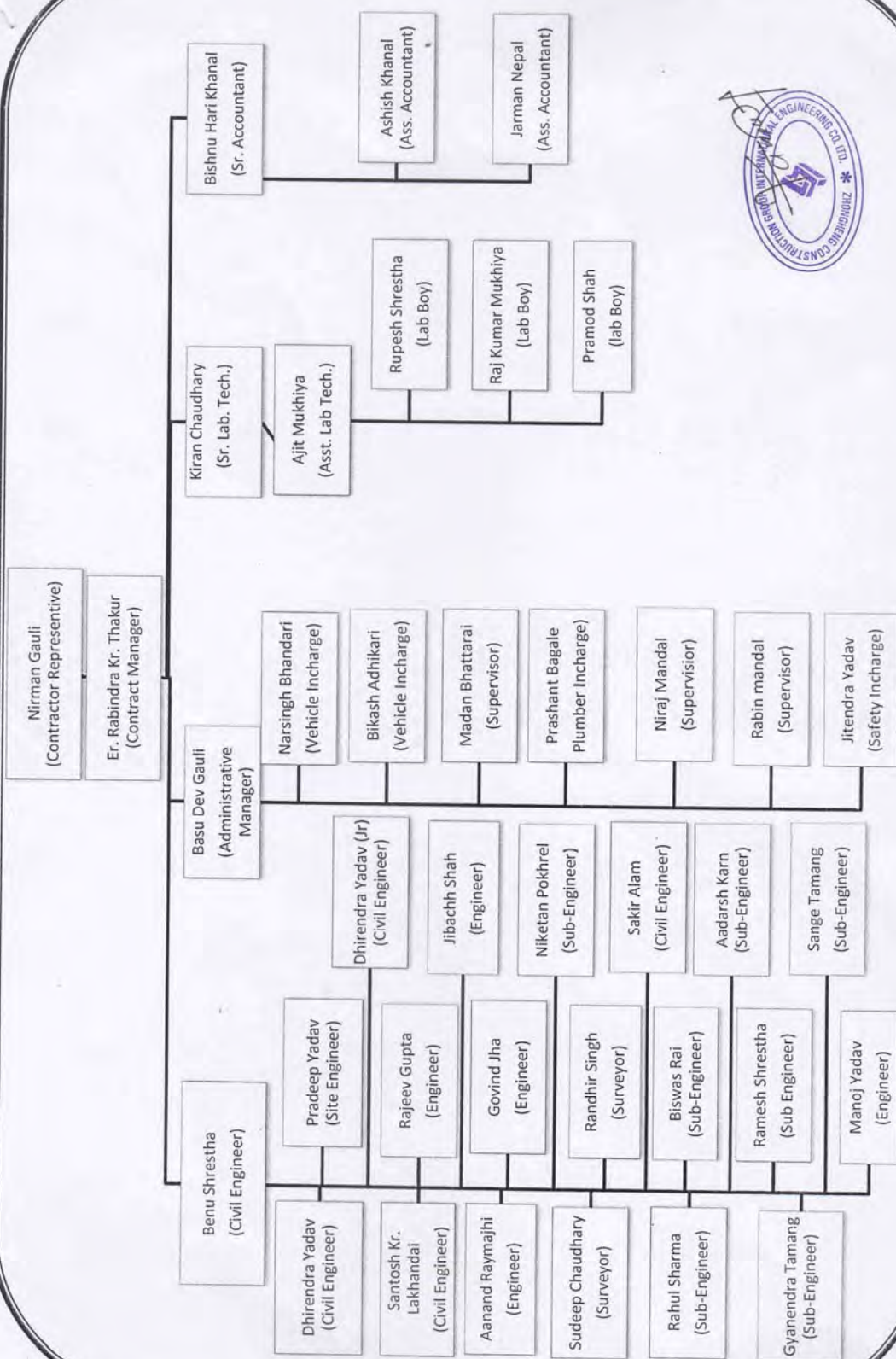
Approved By
Team Leader
Gireesh Chand

ANNEX-4: SOCIAL & ENVIRONMENT SAFEGUARD

Monitoring Formats Attached – September 2019



Details of Contractor's Site Personnel's



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

Subproject Road : -RUDP/ICB/BRT/2



Month/Year: September 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:



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: September 2019

Checklist

SN	Activity	Description/Present Status (Compliance/Partially Compliance/Non Compliance)	Remarks/ Corrective actions for Non-Compliance
1	Training		
1.1	Health, Safety and EMP trainings and awareness	Yes	
1.2	Others awareness and skill trainings	No	
2	Occupational health and safety		
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	
3	Campsite management		
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	
4	Spoil and Construction material Management		
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	

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4.4	Use of private land and agreement with land owners	movement Yes	
5	Air, Noise and Water Pollution		
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	
6	Quarrying of construction materials and Plants Installment		
6.1	Quarry/borrow operation sites	Not Applicable	
6.2	Crusher plant and Asphalt plant operation restoration	Asphalt Plant	
7	Impact/Disruption of Private properties		
7.1	Building structures	Not Applicable	
7.2	Other utilities	Not Applicable	
8	Impact/disruption of public infrastructures		
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	
9	Sites for cultural and religious values		
9.1	Cultural and religious sensitive spots (if any)	Not Applicable	
10	Forest and vegetation		
10.1	Number of trees removal	00	
10.2	No of tree plantation (Roadside)	Not Applicable	
11	Accident cases and records	No any records	
12	Employment to local people		
12.1	Men and women	Yes, both men and women	
12.2	Child labor (if any)	No	
13	Establishment of Safeguard desk and meeting	Yes	
14	Grievances from local people and addressed	Yes	

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Regional Urban Development Project (RUDP)
Project Implementation Unit (PIU)
Biratnagar, Nepal

LABOUR DATA SUMMARY

LABOUR CLASS	LABOUR		COMPOSITION		ETHNIC COMPOSITION			
	SKILLED	UNSKILLED	MALE	FEMALE	JANJATI	DALIT	MUSLIM	BRAHMIN/CHHETRI
LOCAL	49	146	179	16	2	18	41	0
NON LOCAL	73	294	337	30	40	52	35	0
INDIAN	2	12	14	0	0	0	10	0
TOTAL	124	452	530	46	42	70	86	0



Regional Urban Development Project (RUDP) Project Implementation Unit (PIU) Biratnagar, Nepal LABOUR DATA												
S.NO	LOCATION	TYPES OF WORK	TYPES OF WORKERS	LABOUR	COMPOSITION			ETHNIC COMPOSITION			Month/Year: Sept 2019	
					SKILLED	UNSKILLED	MALE	FEMALE	JANJATI	DALIT	MUSLIM	MADHESI
1	Kailika +DDC yard	Production	LOCAL									
			NON LOCAL	15	45	60			20	10		30
			INDIAN									
			TOTAL	60								
2	Madhumara Yard	Production	LOCAL									
			NON LOCAL	10	45	55			10	15		30
			INDIAN									
			TOTAL	55								
3	R7	Weep Hole	LOCAL	3	5	8						8
			NON LOCAL									
			INDIAN									
			TOTAL	8								
4	R3	Site Clearance	LOCAL									
			NON LOCAL	5	33	8	30	10				28
			INDIAN									
			TOTAL	38								
5	B2	Paint	LOCAL									
			NON LOCAL	2	10	12						12
			INDIAN									
			TOTAL	12								
6	T3L5	Drain	LOCAL									
			NON LOCAL	4	18	22				2	10	10
			INDIAN									
			TOTAL	22								



Regional Urban Development Project (RUDP) Project Implementation Unit (PIU) Biratnagar, Nepal LABOUR DATA													
S.NO	LOCATION	TYPES OF WORK	TYPES OF WORKERS	LABOUR SKILLED	UNSKILLED	COMPOSITION MALE	ETHNIC COMPOSITION FEMALE	JANJATI	DALIT	MUSLIM	MADHESI	Month/Year: Sept 2019	
7	T3L10F	Drain	LOCAL	5	18	23			3				
			NON LOCAL										
			INDIAN								20		
			TOTAL	23									
8	T3L7C	Drain	LOCAL										
			NON LOCAL	4	17	21					21		
			INDIAN										
			TOTAL	21									
9	R66	Drain maintenance	LOCAL	3	8	11		2		3	6		
			NON LOCAL										
			INDIAN										
			TOTAL	11									
10	R37	Drain maintenance	LOCAL										
			NON LOCAL	2	7	9					9		
			INDIAN										
			TOTAL	9									
11	R7	Road	LOCAL	2	5	7				2	5		
			NON LOCAL										
			INDIAN										
			TOTAL	7									
12	T3 Trunk	Road	LOCAL	3	5	8			2	2	4		
			NON LOCAL										
			INDIAN										
			TOTAL	8									
13	R43	Sewer inlet	LOCAL										
			NON LOCAL	4	12	16			5		11		
			INDIAN										
			TOTAL	16									
14	T3L23C	Road	LOCAL	2	6	8			3	3	2		
			NON LOCAL										
			INDIAN										
			TOTAL	8									



Regional Urban Development Project (RUDP) Project Implementation Unit (PIU) Biratnagar, Nepal LABOUR DATA													Month/Year: Sept 2019
S.NO	LOCATION	TYPES OF WORK	TYPES OF WORKERS	LABOUR SKILLED	UNSKILLED	COMPOSITION MALE	ETHNIC COMPOSITION FEMALE	JANJATI	DALIT	MUSLIM	MADHESI	BRAHMIN/CHHETRI	
15	R9	Road	LOCAL	2	7	9				5	4		
			NON LOCAL										
			INDIAN										
			TOTAL	9									
16	T3 Trunk	Kerbstone	LOCAL										
			NON LOCAL	5	20	25			5	15			
			INDIAN										
			TOTAL	25									
17	R46	Tiles	LOCAL										
			NON LOCAL	4	15	19				19			
			INDIAN										
			TOTAL	19									
18	T3L19X	Drain	LOCAL										
			NON LOCAL	4	18	22			2	20			
			INDIAN										
			TOTAL	22									
19	R8	Drain	LOCAL										
			NON LOCAL	5	18	23			10	13			
			INDIAN										
			TOTAL	23									
20	R2	House Connection	LOCAL	2	7	9					9		
			NON LOCAL										
			INDIAN										
			TOTAL	9									
21	R26	Interlock	LOCAL										
			NON LOCAL	5	22	27			7	10			
			INDIAN										
			TOTAL	27									
22	T3 Trunk	Drain	LOCAL	4	12	12	4			16			
			NON LOCAL										
			INDIAN										



Regional Urban Development Project (RUDP) Project Implementation Unit (PIU) Biratnagar, Nepal LABOUR DATA												
S.NO	LOCATION	TYPES OF WORK	TYPES OF WORKERS	LABOUR SKILLED	COMPOSITION			ETHNIC COMPOSITION			Month/Year: Sept 2019	
					UNSKILLED	MALE	FEMALE	JANJATI	DALIT	MUSLIM	MADHESI	BRAHMIN/CHHETRI
			TOTAL	16								
23	T3L10C	Drain	LOCAL	4	12	16					16	
			NON LOCAL									
			INDIAN									
			TOTAL	16								
24	TL19H	Drain	LOCAL	3	12	15					15	
			NON LOCAL									
			INDIAN									
			TOTAL	15								
25	T2L19X	Kerbstone	LOCAL									
			NON LOCAL	4	12	16			6		10	
			INDIAN									
			TOTAL	16								
26	S13	Asphalt	LOCAL									
			NON LOCAL	2	12	14				10	4	
			INDIAN	14								
			TOTAL									
27	R102	Brooming	LOCAL	4	14	6	12			10	8	
			NON LOCAL									
			INDIAN									
			TOTAL	18								
28	R3	Interlock	LOCAL									
			NON LOCAL	5	20	25				10	15	
			INDIAN									
			TOTAL	25								
29	T3L7	House Connection	LOCAL	4	9	13					13	
			NON LOCAL									
			INDIAN									
			TOTAL	13								
30	TL19F	House Connection	LOCAL	3	8	11					11	
			NON LOCAL									
			INDIAN									
			TOTAL	11								

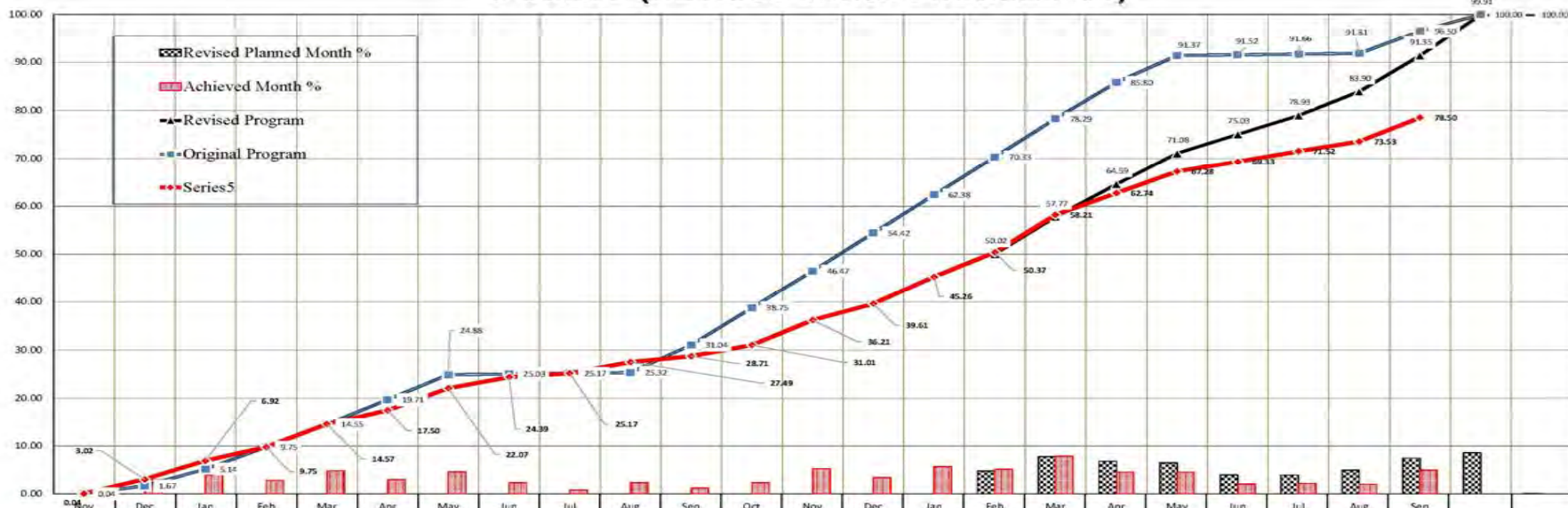


ANNEX-5: S-Curve

ATTACHED – September 2019



BIRATNAGAR METROPOLITAN CITY
REGIONAL URBAN DEVELOPMENT PROJECT (RUDP)
S-CURVE (REVISED WORK PROGRAM-01)



Year/Month	2017												2018												2019												
	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
	Scheduled Work Program												Revised Work program - 01																								
Original Planned Month %	0.04	1.63	3.48	4.60	4.80	5.17	5.17	0.15	0.15	0.15	5.71	7.72	7.72	7.95	7.96	7.96	7.96	7.51	5.57	0.15	0.15	0.15	4.69	3.51	0.00												
Original Planned Cum %	0.04	1.67	5.14	9.75	14.55	19.71	24.88	25.03	25.17	25.32	31.04	38.75	46.47	54.42	62.38	70.33	78.29	85.80	91.37	91.52	91.66	91.81	96.50	100.00	100.00												
Achieved month %	0.04	2.98	3.90	2.83	4.82	2.93	4.57	2.32	0.78	2.32	1.22	2.30	5.20	3.40	5.65	5.11	7.84	4.53	4.54	2.05	2.19	2.01	4.97														
Achieved Progress Cum%	0.04	3.02	6.92	9.75	14.57	17.50	22.07	24.39	25.17	27.49	28.71	31.01	36.21	39.61	45.26	50.37	58.21	62.74	67.28	69.33	71.52	73.53	78.50														
Revised Planned Month %																	4.76	7.75	6.82	6.49	3.95	3.90	4.97	7.45	8.56	0.090											
Revised Planned Cum %																	50.02	57.77	64.59	71.08	75.03	78.93	83.90	91.35	99.91	100.00											
Revised planned month Amount in 100000																	1099.89	1790.79	1575.90	1499.65	912.73	901.17	1148.42	1721.47	1977.96	20.80											
Achieved Month Amount in 100000																	1180.77	1811.59	1046.75	1049.06	473.69	506.04	464.45	1148.42													
Revised planned Cum Amount in 100000																	11558.80	13349.59	14925.49	16425.14	17337.86	18239.04	19387.45	21108.93	23086.89	23107.68											
Achieved Cum Amount in 100000																	11659.67	13451.26	14498.01	15547.07	16020.76	16526.81	16991.26	18139.68													

Note: Our Claim for Extension of Time remain valid as per contract.



Annex-6: Master Plan of RUDP Project



