

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



February 2020

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. Subproject 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
<u>The Consultant:</u>	
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
<u>The Contractor:</u>	
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 (Scheduled)	1 st November 2019
Date of Completion (after EOT-1)	18 th May 2020
Contract Amount including PS and VAT	NRs. 2,611,092,249.63



General Features	
Contract Amount including PS and VAT (Corrected)	NRs. 2,611,088,390.60
Contract Amount including PS and VAT (after VO-1)	NRs. 2,760,853,674.59
Additional Financing 100% funded by BMC after VO-1 (provisional items)	NRs. 39,999,893.49
Progress	wrt VO-1
Road Rehabilitation (Asphalt)	78.17%
Sewer Line	99.46%
Storm Drain	100.00%
Road Side Drain	100.00%
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	With respect to Revised Work Program-02 (after VO-01): Planned: 85.68%, Actual: 85.22%; Lead (+) or Lag (-) by (-) 0.46% Lag. <i>“Work progress is lagging due to delay in approval of Variation Order – 2”.</i>
Financial Progress up to date (<i>on the basis of IPC forwarded for disbursement</i>)	In Percentage: 79.23%, In Figure: NRs. 2,187,411,101.05 (including VAT and PS) up to IPC –15 wrt to VO-1.
	In Words: NRs. Two Billion One Hundred Eighty Seven Millions Four Hundred Eleven Thousand One Hundred One and Five Paisa Only.



3. SUMMARY OF PROGRESS STATUS OF ALL MAJOR COMPONENTS

S. No.	Description	Unit	Quantity as per VO-1	Progress up to date	Remaining	Progress Status expressed in (%) wrt VO-1	Remarks
1	Sewer Line						
a	HDPE/RCC	m	18,559.80	18,459.80	100.00	99.46%	
b	Manhole	No.	606.00	604.00	2.00	99.67%	
c	Sewer Inlet	No.	1,010.00	548.00	462.00	54.25%	
d	House Connection	No.	3,784.00	1,853.00	1,931.00	48.96%	
2	Storm Water Drain						
a	RCC Drain	m	585.00	585.00	-	100.00%	
b	Piles	No.	138.00	138.00	-	100.00%	
3	Road						
a	Sub grade	m	66,718.00	59,695.63	7,022.37	89.47%	
b	Sub base	m	66,718.00	58,835.63	7,882.37	88.19%	
c	Base	m	66,718.00	55,056.08	11,661.92	82.52%	
d	Prime	m	66,718.00	52,151.65	14,566.35	78.17%	
e	Asphalt	m	66,718.00	52,151.65	14,566.35	78.17%	
4	Road Side Drain	m	35,424.00	35,423.82	0.18	100.00%	



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 100m length of secondary sewer lines of T3 east of Sanihat chowk. The SI & HCC works are in progress also the maintenance work of sewer lines, sewer inlet and house chamber connections are in progress where required as per instruction from DSC & PIU.

Details of proposed sewer lines and progress are as tabulated in Table 1 & Table 2 below: -



Table 1: PROPOSED ALL MAJOR COMPONENTS OF THE PROJECT

S. No.	Description	Unit	Quantity after VO-1
1	Sewerage Pipe Supply and Installation	m	18,559.80
	Reinforced Concrete Pipe laying and jointing		1,967.50
	Line T2 (Secondary)	m	205.00
	Line T3 (Trunk)	m	1,632.50
	Line T4 (Trunk)	m	130.00
	HDPE laying and jointing	m	16,592.30
	Line T1 (Secondary)	m	1,743.20
	Line T2 (Secondary)	m	3,153.40
	Line T3 (Secondary)	m	9,643.80
	Line T4 (Secondary)	m	2,051.90
2	Manhole (Brick / RCC)	no.	606.00
3	Sewer Inlet	no.	1,010.00
4	House Connection	no.	3,784.00
5	Reinstatement of Roads	km	66.718
6	Road side Drain	Km	35.424
7	Storm Water Drain	m	585.00



Table: - 2 PHYSICAL PROGRESS IN SEWER LINES till date

SN	Description	Quantity as per VO-01		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)	205.00	6.00	205.00	6.00			205.00	6.00	
2	Hume pipe (T3)	1,632.50	25.00	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)		1,967.50	35.00	1,967.50	35.00			1,967.50	35.00	
HDPE Pipe:										
1	HDPE (T1)	1,743.20	54.00	1,743.20	54.00			1,743.20	54.00	
2	HDPE (T2)	3,153.40	121.00	3,153.40	121.00			3,153.40	121.00	
3	HDPE (T3)	9,643.80	340.00	9,543.80	333.00		5.00	9,543.80	338.00	
4	HDPE (T4)	2,051.90	56.00	2,051.90	56.00			2,051.90	56.00	
Subtotal in (m)		16,592.30	571.00	16,492.30	564.00		5.00	16,492.30	569.00	
Total		18,559.80	606.00	18,459.80	599.00	-	5.00	18,459.80	604.00	99.46%



SN	Description	Quantity as per VO-01 (Nos.)	Up to Pre Month	This month	Total to date	Progress %
1	Sewer inlet	1,010.00	633.00	(85.00)	548.00	54.25
2	House connection	3,784.00	1,705.00	148.00	1,853.00	48.96



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 3:

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

S N	Name of Drain	Length in m				Length of Covered Drain in m	Remarks	
		Original	Revised after VO-1	Progress				Cumulative
				Previous	This Month			
1	CN2-CN3 (Chyangh Baari Nala)	652.89	585.00	585.00		585.00	585.00	100% Completed
2	CN2-CN3 (Chyangh Baari Nala)	132 Nos. of piles	138 Nos. of piles	138 Nos. of piles		138 Nos. of piles		100% 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 66.718 km as per VO-01. Some of the roads of the project has been completed and some of them are in the process of being upgraded.

Out of 66.718 km. about 58.83 Km. has been attempted for Sub Base. About 52.15 km. Asphalt work is completed. The summary of physical progress of flexible pavement, rigid pavement and footpaths are tabulated in Table 4, 4.1 & 4.2 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	This Month		m	m	m	m	m	
1	R42	Bhagwati Marg	229.00		229.00	229.00	229.00	229.00			
2	R5	College Road	650.00		650.00	650.00	544.50	544.50			
3	R5	Chulachuli Road	196.00		196.00	196.00	196.00	196.00			
4	R5		191.60		191.60	191.60	191.60	191.60			
5	B2	Gauri Shankar Marg	2,152.00		2,152.00	2,152.00	2,152.00	2,152.00	210.00		
6	R65	Satghumti Marg	320.00		320.00	320.00	320.00				
7	R107		215.00		215.00	215.00	215.00	174.00			
8	R107 a		50.00		50.00	50.00	49.00	49.00			
9	R104	VIP Marg	281.15		281.15	281.15	281.15	281.15			
10	R8	Madhumara Marg	553.05		553.05	553.05	553.05	553.05			
11	B1	Kanchan Marg	1,173.00		1,173.00	1,173.00	1,106.00	1,106.00		1,106.00	
12	R21	Pratibha Marg	1,367.10		1,367.10	1,367.10	1,367.10	1,367.10		1,012.80	
13	B3	Keshaliya Marg	1,627.75		1,627.75	1,627.75	1,627.75	1,627.75			



SN	Road Number	Name of Road	Length in m			Work Completed					Remarks
			Progress		Total	Sub-base	Base	Asphalt	RCC	Paint	
			Previous	This Month		m	m	m	m	m	
14	S13		1,687.30		1,687.30	1,687.30	1,687.30	1,687.30		1,812.60	
15	R12		880.00	250.00	1,130.00	1,130.00	1,130.00	990.00			
16	R12	Kanchha Dai Marg	900.00		900.00	900.00	900.00	289.50			
17	Rani site	Rani	3,295.60	260.00	3,555.60	3,555.60	3,555.60	3,295.60			
18	R16	Satya Marg	604.00		604.00	604.00	604.00	554.90			
19	R26	Pasang Marg	598.00	315.00	913.00	913.00	913.00	913.00			
20	R28	Pustakalaya Marg	635.00		635.00	635.00	621.20	539.20			
21	R27	Peepal Marg	601.60	185.00	786.60	786.60	786.60	786.60		639.20	
22	R25	Devi Marg	580.00		580.00	580.00	580.00	566.80			
23	R24	Prabhat Marg	518.15		518.15	518.15	518.15	518.15			
24	R37	Banglamukhi Marg	477.00		477.00	477.00	477.00	477.00			
25	R7	Manakamana Marg	542.00		542.00	542.00	542.00	542.00			
26	R7	in between R18 to R27	400.00		400.00	400.00	400.00	400.00			
27	R30	Shanti Marg	229.50		229.50	229.50	229.50	229.50			



SN	Road Number	Name of Road	Length in m			Work Completed					Remarks
			Progress		Total	Sub-base	Base	Asphalt	RCC	Paint	
			Previous	This Month		m	m	m	m	m	
28	R9	Fadindra Marg	119.00		119.00	119.00	119.00	119.00			
29	R9		230.00		230.00	230.00	230.00	140.00			
30	S11	Samrat Marg	660.00		660.00	660.00	504.60	504.60		504.60	
31	R22	Amar Marga	367.65		367.65	367.65	367.65	367.65			
32	R29	Shanti Marg	838.70		838.70	838.70	838.70	838.70		585.60	
33	R36	Gaurav Marg	222.00		222.00	222.00	222.00	222.00		440.00	
34	R33	Tarun Marg	283.00		283.00	283.00	283.00	283.00			
35	R64	Satya Narayan Marg	121.00		121.00	121.00	121.00	-			
36	R8		225.00		225.00	225.00	225.00	225.00			
37	N36		190.00		190.00	190.00	186.95	186.95			
38	R188	Shakti Marg	116.00		116.00	116.00	116.00	116.00			
39	R2	Main Road	3,120.00	131.70	3,251.70	3,251.70	3,251.70	3,251.70		350.00	
40	T3 Line 6A	Pandit Meghnath Marg	279.00		279.00	279.00	279.00	279.00			
41	T2 Line 24C	Nava Jyoti Marg	205.00		205.00	205.00					



SN	Road Number	Name of Road	Length in m			Work Completed					Remarks	
			Progress		Total	Sub-base	Base	Asphalt	RCC	Paint		
			Previous	This Month		m	m	m	m	m		
42	T2 Line 24D	Nava Jyoti Marg	210.00		210.00	210.00						
43	R63 (DSP Road)	DSP Road	424.24		424.24	424.24	424.24	424.24	424.24			
44	R90	Shakti Marg	450.00		450.00	450.00	450.00	450.00	450.00		640.00	
45	R77	Arniko Marg	87.20		87.20	87.20	87.20	87.20	87.20			
46	R76	Mitra Marg	270.00		270.00	270.00	270.00	270.00	270.00		541.20	
47	R183	Nava Jyoti Marg	240.00		240.00	240.00	220.00	220.00				
48	T1 L16B	Xenial Front	210.00		210.00	210.00	205.00	205.00				
49	T1L16A	Xenial South	180.00		180.00	180.00	180.00	180.00				
50	R114	Dharanidhar Marg	560.00		560.00	560.00	560.00	560.00			560.00	
51	R113	Kavi Lekh Marg	740.00		740.00	740.00	740.00	740.00				
52	R5a		54.70		54.70	54.70	54.70	54.70				
53	R3	Dharamban Marg	2,383.00		2,383.00	2,383.00	2,383.00	2,383.00			2,080.30	
53.a	R3 - Tinpaini towards North and telecom			220.00	220.00	220.00	220.00	198.00				
54	R3 - under STIUEIP	Tinpaini to Puspallal chowk	-		-	-					4,000.00	



SN	Road Number	Name of Road	Length in m			Work Completed					Remarks
			Progress		Total	Sub-base	Base	Asphalt	RCC	Paint	
			Previous	This Month		m	m	m	m	m	
55	R78	Sombare -Highway	92.00		92.00	92.00	92.00	92.00			
56	R84	West of school	473.20		473.20	473.20	381.00	381.00			
57	R84		93.60		93.60	93.60	93.60	93.60			
58	R85	Machha Line	160.00		160.00	160.00	160.00	160.00			
59	R87	Mahabir Chowk	154.00		154.00	154.00	154.00	154.00			
60	R86	Petrol pump side - R12	200.00		200.00	200.00	191.00	191.00			
61	R11	R18/R86	281.00		281.00	281.00	205.00	205.00			
62	N3	Jatuwa	122.00		122.00	122.00	122.00	122.00			
63	N4	Jatuwa	168.00		168.00	168.00	168.00	168.00			
64	R10	Ram Marga	292.00		292.00	292.00	292.00	292.00		853.20	
65	R10	R35 to R21	393.00		393.00	393.00	393.00	393.00			
66	T2L26F	APF	55.00		55.00	55.00					
67	T2L27		80.00		80.00	80.00	80.00	80.00			
68	R122		265.55		265.55	265.55	265.55	265.55		497.40	



SN	Road Number	Name of Road	Length in m			Work Completed					Remarks
			Progress		Total	Sub-base	Base	Asphalt	RCC	Paint	
			Previous	This Month		m	m	m	m	m	
69	N9		220.42		220.42	220.42	220.42	220.42			
70	R17		373.00		373.00	373.00	373.00	373.00		730.00	
71	R18		387.00		387.00	387.00	387.00	387.00			
72	N2		105.84		105.84	105.84	105.84	105.84			
73	T3L6	Moti marga	170.00		170.00	170.00	170.00	170.00			
74	T3L6	Elite club - CDO Office	107.00		107.00	107.00					
75	T3L6	Balmandir - Ganesh Mandir	380.00		380.00	380.00					
76	T3L6	CDO Office front	49.40		49.40	49.40					
77	T3L6A	Golchha Marga	220.00		220.00	220.00	220.00	220.00			
78	T3L23	Madhumara road	541.00		541.00	541.00	541.00	541.00		358.40	
79	R45	Bata road	505.00		505.00	505.00	505.00	505.00			
80	T3L21		400.00		400.00	400.00	400.00	400.00		774.00	
81	T3L21B		60.00		60.00	60.00	60.00	60.00			
82	N5	R16 to R18	71.00		71.00	71.00	71.00	71.00		122.00	



SN	Road Number	Name of Road	Length in m			Work Completed					Remarks
			Progress		Total	Sub-base	Base	Asphalt	RCC	Paint	
			Previous	This Month		m	m	m	m	m	
83	T3L39		400.00		400.00	400.00	325.80	325.80		491.00	
84	T3L39A		89.00		89.00	89.00	89.00	89.00		179.40	
85	T3L39B		60.00		60.00	60.00	60.00	60.00		117.60	
86	T3L39C		100.00		100.00	100.00					
87	R68 - T2L24G		220.00		220.00	220.00	220.00	218.00			
88	N10		194.00		194.00	194.00	194.00	194.00			
89	T3L24C		170.00		170.00	170.00					
90	T3L9		278.00		278.00	278.00					
91	R6		1,228.20		1,228.20	1,228.20	1,228.20	1,228.20			
92	N24		116.00		116.00	116.00	116.00	116.00			
93	R31		188.70		188.70	188.70	188.70	188.70			
94	Bindabasini Marga		352.28		352.28	352.28	352.28	352.80			
95	Bhatti mode to Hartalihaat		166.50		166.50	166.50	166.50	166.50			



SN	Road Number	Name of Road	Length in m			Work Completed					Remarks
			Progress		Total	Sub-base	Base	Asphalt	RCC	Paint	
			Previous	This Month		m	m	m	m	m	
96	R73		217.00		217.00	217.00	217.00	217.00			
97	R6 (R41-R44)	Bata Galli	269.00		269.00	269.00	269.00	269.00			
98	R6		1,322.00		1,322.00	1,322.00	1,322.00	1,322.00			
99	R6	Pratibha chowk to N2	510.80		510.80	510.80	510.80	510.80			
100	R9 (R41-R7)		194.80		194.80	194.80	194.80	194.80			
101	R44	Thakurbari Road	482.50	15.00	497.50	497.50	497.50	497.50			
102	R102	Main	140.00		140.00	140.00	140.00	140.00			
103	R102	Branch	71.30		71.30	71.30	71.30	71.30			
104	R103		170.40		170.40	170.40	170.40	170.40			
105	R32		188.00		188.00	188.00	188.00	188.00			
106	T2L18Y		116.20		116.20	116.20	116.20	116.20			
107	R20		108.00		108.00	108.00	108.00	108.00			
108	R82	Everest School	530.00		530.00	530.00	530.00	530.00			
109	T1L5		140.00		140.00	140.00	140.00	140.00			
110	T1L5A		533.50		533.50	533.50	533.50	533.50			



SN	Road Number	Name of Road	Length in m			Work Completed					Remarks
			Progress		Total	Sub-base	Base	Asphalt	RCC	Paint	
			Previous	This Month		m	m	m	m	m	
111	T3L23C	Jay Nepal	272.20		272.20	272.20	65.20	65.20			
112	T3L23C	North to Jay Nepal	82.90		82.90	82.90	82.90	82.90			
113	T3L25B		195.00		195.00	195.00	190.00	112.00			
114	T3L25C		140.00		140.00	140.00	140.00	140.00			
115	R3	T3 Trunk	685.00		685.00	685.00	370.00				
116	Nagmandir to R3		55.00		55.00	55.00	55.00	55.00			
117	R4		360.00	110.00	470.00	470.00	360.00	360.00			
118	R75		143.50		143.50	143.50	143.50	143.50			
119	R43		329.40		329.40	329.40	329.40	329.40			
120	T219P		124.80		124.80	124.80	124.80	124.80			
121	T219Q		113.70		113.70	113.70	113.70	113.70			
122	R106		180.00		180.00	180.00	180.00				
123	T3L12		80.00		80.00	80.00	50.90	50.90			
124	R46		340.00		340.00	340.00	340.00	340.00			
125	T3L11E		124.55		124.55	124.55	124.55	124.55			



SN	Road Number	Name of Road	Length in m			Work Completed					Remarks
			Progress		Total	Sub-base	Base	Asphalt	RCC	Paint	
			Previous	This Month		m	m	m	m	m	
126	T3L13D		70.00		70.00	70.00					
127	T3L13C		100.00		100.00	100.00	100.00	100.00			
128	R34		157.00		157.00	157.00	157.00	157.00			
129	T3L13E		80.00		80.00	80.00	65.00	65.00			
130	T3L13K		154.00		154.00	154.00	75.90	75.90			
131	R19		247.00		247.00	247.00	228.00	228.00			
132	R41		540.00		540.00	540.00	540.00	540.00			
133	R9B		90.00		90.00	90.00	90.00	83.85			
134	R67		119.40		119.40	119.40	119.40	119.40			
135	R74		100.00		100.00	100.00	100.00	100.00			
136	R9A		109.00		109.00	109.00	109.00	109.00			
137	T2L19F		120.00		120.00	120.00	117.20	117.20			
138	T3L7A		190.00		190.00	190.00	158.00	158.00			
139	T3L7C		155.00		155.00	155.00	155.00	142.00			
140	T3L13F		75.00		75.00	75.00	75.00	75.00			



SN	Road Number	Name of Road	Length in m			Work Completed					Remarks
			Progress		Total	Sub-base	Base	Asphalt	RCC	Paint	
			Previous	This Month		m	m	m	m	m	
141	T3L11M		80.00		80.00	80.00	80.00	80.00			
142	T3L11N		70.00		70.00	70.00	30.00				
143	T3L13J		67.00		67.00	67.00	67.00	67.00			
144	T3L33A (N7)		150.00		150.00	150.00	150.00	150.00			
145	T3L33B		30.00	134.00	164.00	164.00	164.00				
146	R35		137.00		137.00	137.00	137.00	137.00			
147	R83		130.00		130.00	130.00	130.00	130.00			
148	R101		130.00		130.00	130.00					
149	R105		160.00		160.00	160.00	160.00	160.00			
150	R15		192.00		192.00	192.00	192.00	192.00			
151	R181A		190.00		190.00	190.00	190.00	180.00			
152	T3L5		285.00		285.00	285.00					
153	N38		200.00		200.00	200.00	200.00				
154	T2L26E			104.00	104.00	104.00	104.00				
155	T2L19G			63.00	63.00						



SN	Road Number	Name of Road	Length in m			Work Completed					Remarks
			Progress		Total	Sub-base	Base	Asphalt	RCC	Paint	
			Previous	This Month		m	m	m	m	m	
156	T2L19H			84.00	84.00						
157	T2L19V			192.00	192.00	192.00	192.00				
158	T2L19Y			108.00	108.00	108.00					
159	T2L19W			56.00	56.00						
160	T2L19Z			60.00	60.00	60.00					
161	R110			250.00	250.00	250.00	250.00	100.00			
162	B2 (2)			87.00	87.00	87.00	87.00				
163	T2L18A			97.00	97.00	97.00					
164	T3L13C			227.00	227.00						
165	B2	Bargachhi Chowk		430.00	430.00			430.00			
166	R7	Sani Haat Chowk		86.00	86.00	86.00	86.00	86.00			
167	T3L21	Milan Chowk		60.00	60.00	60.00	60.00	60.00			
168	T3L18C			103.00	103.00	103.00	103.00	103.00			
	Total		56,067.93	3,627.70	59,695.63	58,835.63	55,056.08	52,151.65	210.00	18,395.30	



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

SN	Road Number	Type*	Progress in m			Footpath			Remarks
			Previous	This Month	Cumulative	Length (m)	Avg. Breadth (m)	Quantity (m ²)	
1	R2	Precast block	602.00	300.00	902.00	902.00	0.98	879.45	RHS
2	R2	Precast block	602.00		602.00	602.00	1.10	662.20	LHS
3	R29	Precast block	330.00		330.00	330.00	0.90	297.00	RHS
4	R29	Precast block	330.00		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	335.00		335.00	335.00	0.90	301.50	LHS
7	R28	Precast block	341.00		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	This Month	Cumulative	Length (m)	Avg. Breadth (m)	Quantity (m ²)	
18	R10	Precast block	700.00		700.00	700.00	0.95	665.00	RHS
19	R10	Precast block	700.00		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	185.00		185.00	185.00	0.30	55.50	RHS
23	R32	Precast block	185.00		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	This Month	Cumulative	Length (m)	Avg. Breadth (m)	Quantity (m ²)	
36	B3	Precast block	670.00	490.00	1,160.00	1,160.00	2.33	2,697.00	RHS
37	B3	Precast block	670.00		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	60.00	310.00	310.00	1.10	341.00	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
	Total =		17,697.00	850.00	18,547.00	18,547.00		21,540.10	



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

SN	Description	Unit	Proposed in VO-01	Total Up to Previous Month	This Month	Total Up to this Month	Progress wrt VO-01
1	Subgrade	m	66,718.00	56,067.93	3,627.70	59,695.63	89.47%
2	Sub Base	m	66,718.00	55,457.93	3,377.70	58,835.63	88.19%
3	Base	m	66,718.00	51,171.98	3,884.10	55,056.08	82.52%
4	Prime/Tack	m	66,718.00	47,826.95	4,324.70	52,151.65	78.17%
5	Asphalt	m	66,718.00	47,826.95	4,324.70	52,151.65	78.17%

Note: Rigid road pavement is done only at B2 (3) near DPS School, east to B2 which is 427.89 m in length with crossing and run parallel to storm water drain in either side as described in table No.: 04.



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 either 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	45.00		45.00	45.00		
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		89.58	89.58		
6	R63	DSP Road	418.79		418.79	418.79		
7	R9	Baglamukhi path	103.20		103.20	103.20		
8	S13	Udaya Marga	79.05		79.05	79.05		
9	N33		60.00		60.00	60.00		
10	R28	Pustakalaya Marg	139.00		139.00	139.00		One Side
11	R90	Shakti Marg	377.30		377.30	377.30		
12	R114	Dharanidhar Marg	312.33		312.33	312.33		
13	R11	Om Shiv Marg	204.25		204.25	204.25		
14	R18		389.50		389.50	389.50		
15	R17		372.00		372.00	372.00		
16	R113	Kavi Lekhanath Marg	157.15		157.15	157.15		One Side
17	R77	Arniko Marg	80.00		80.00	80.00		
18	R76	Mitra Marg	270.00		270.00	270.00		



SN	Road Number	Name of Road	Length in (m)			Work Completed		Remarks
			Progress		Total	Brick	RCC	
			Previous (Revised)	This Month		m	m	
19	N9	Devi Marga	222.58		222.58	222.58		
20	N4		162.20		162.20	162.20		
21	R33	Tarun Marg	283.15		283.15	283.15		
22	R36	Gaurav Marg	221.80		221.80	221.80		
23	R86	Jan path Marg	192.15		192.15	192.15		
24	R183	Nava Jyoti Marg	219.40		219.40	219.40		
25	R7a		67.35		67.35	67.35		
26	Rani site	Rani B	365.33		365.33	365.33		
27	Rani site	Rani A	271.50		271.50	271.50		
28	N3		126.25		126.25	126.25		
29	N5		65.00		65.00	65.00		
30	R21	Binayak Marga	194.13		194.13	194.13		One Side
31	R2	Main Road	2,793.50		2,793.50	2,793.50		
32	T1L16B	Xenial Front	205.68		205.68	205.68		
33	T1L16A	Xenial South	160.74		160.74	160.74		
34	R75	Tintoliya Marga	143.00		143.00	143.00		
35	R122	Amar Marga	256.00		256.00	256.00		
36	R18 Branch		30.00		30.00	30.00		
37	R7(b)(Neuro to Siddhartha chowk)	Siddhartha Marga	365.00		365.00	365.00		
38	R12	Sukra Path	846.50		846.50	846.50		
39	R42	Jahada Marga	85.50		85.50	85.50		
40	R6	Shahi Marg	963.00	7.00	970.00	-	970.00	
41	R21(a)	DharamBadh Junction	95.00		95.00	95.00		One Side
42	R78	Binayak Marga	70.00		70.00	70.00		



SN	Road Number	Name of Road	Length in (m)			Work Completed		Remarks
			Progress		Total	Brick	RCC	
			Previous (Revised)	This Month		m	m	
43	R188	Shakti Marg	115.60		115.60	115.60		
44	R40	Brahma Kumari Marga	328.20		328.20	328.20		
45	Rani Site C		97.50		97.50	97.50		
46	Rani Site D		131.45		131.45	131.45		
47	T3L21	Moti Marga	527.00		527.00	527.00		
48	T3L39	Gaheli Marga	340.00		340.00	340.00		
49	T3 Line 39A		139.00		139.00	139.00		
50	T3 L39B		58.50		58.50	58.50		
51	T2L27	Bhumi Prashasan Junction	79.50		79.50	79.50		
52	N2		103.20		103.20	103.20		
53	T2 Line 26E	College Road	90.00		90.00	90.00		
54	T2 Line 18C	Maisthan Marga	102.00		102.00	102.00		
55	T2Line 18A	Makalu Marga	90.00		90.00	90.00		
56	R6 (T3L11i)		265.00		265.00	265.00		
57	R9 (T3L11k)	Tathasthu Marga	180.00		180.00	180.00		
58	R45 (T3Line10D)	Dadhiram Marga	298.00		298.00	298.00		
59	R9, T2 L19	Fanindra Marga and Baglamukhi Marga	362.00		362.00	362.00		
60	R7c (Neuro to Shanti Chowk)	Siddhartha Marga	600.00		600.00	600.00		
61	R84	School Marga and Tenjing Marga	560.00		560.00	560.00		
62	R85	Lekhanath Marga	150.00		150.00	150.00		
63	R87	Byas Marga	150.00		150.00	150.00		
64	Rani B (Bus park)		90.00		90.00	90.00		
65	R8(a)	Madhumara Marg	312.00		312.00	312.00		



SN	Road Number	Name of Road	Length in (m)			Work Completed		Remarks
			Progress		Total	Brick	RCC	
			Previous (Revised)	This Month		m	m	
66	T3L23A, R101		220.00		220.00	220.00		
67	Rani E		80.00		80.00	80.00		One Side
68	R102	Hamro Marg	140.00		140.00	140.00		
69	R10/R10a	Ram Marga	740.36		740.36	740.36		
70	N10	APF	193.00		193.00	193.00		
71	R23	Bani Marg	200.00		200.00	200.00		
72	R103	Vibuti Marga	170.00		170.00	170.00		
73	T3L6 and T3L7	Sahid Marga	730.00		730.00	730.00		
74	P1, T3L6A	Pandit Meghnath Marga	260.00		260.00	260.00		
75	T2 L24C & D	Hanuman Das Marga	180.00		180.00	180.00		
76	T2 L25 (R5)	Chulachuli Marga	200.00		200.00	200.00		
77	R20		108.00		108.00	108.00		
78	T2L24F		115.50		115.50	115.50		
79	R105		86.00		86.00	86.00		One Side
80	R34	Prabhu Marg	158.35		158.35	158.35		
81	R35	Garima Marg	140.00		140.00	140.00		
82	R107		160.00		160.00	160.00		
83	T3L13D		70.63		70.63	70.63		
84	T3L13E		62.40		62.40	62.40		
85	T3L11E		110.00		110.00	110.00		
86	B2		210.00		210.00	210.00		
87	R78		35.00		35.00	35.00		One Side
88	T3L21B		70.00		70.00	70.00		
89	T3L21A		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	
90	R74		96.00		96.00	96.00		
91	R46, (T3L7 and T3L22)	Rangeli Road	400.00		400.00	400.00		
92	T3L7A		125.00		125.00	125.00		
93	T3L8		75.00		75.00	75.00		
94	R5, (T2 L24)	Gudari Marga	274.00		274.00	274.00		
95	R82		190.00		190.00	190.00		
96	T1L13A		100.00		100.00	100.00		
97	T1L14A		150.00		150.00	150.00		
98	R68		200.00		200.00	200.00		
99	T3L22A		335.00		335.00	335.00		
100	T3L22B		120.00		120.00	120.00		
101	T3L25C		130.00		130.00	130.00		
102	T3L11B		71.00		71.00	71.00		
103	T3L11M		82.00		82.00	82.00		
104	R106		70.00		70.00	70.00		
105	R41		520.00		520.00	520.00		
106	T2L19B		130.00		130.00	130.00		
107	R30		180.00		180.00	180.00		
108	T3L13C		300.00		300.00	300.00		
109	T3L13J		72.53		72.53	72.53		
110	T2L18Y		100.00		100.00	100.00		
111	T2L19P		114.38		114.38	114.38		
112	T2L19Q		126.55		126.55	126.55		
113	R9A		109.30		109.30	109.30		
114	R9B		85.00		85.00	85.00		



SN	Road Number	Name of Road	Length in (m)			Work Completed		Remarks
			Progress		Total	Brick	RCC	
			Previous (Revised)	This Month		m	m	
115	T2L18K		74.70		74.70	74.70		
116	T3L23C		105.00		105.00	105.00		
117	T2L24E	Mahabir Marga	216.00		216.00	216.00		
118	R44		700.00		700.00	700.00		
119	R110		250.00		250.00	250.00		
120	Parichaya Marga		190.00		190.00	190.00		
121	T3L25B		195.00		195.00	195.00		
122	T1L5, 5A		590.00		590.00	590.00		
123	T2L19Y		150.00		150.00	150.00		
124	T3 Trunk		1,555.08		1,555.08	1,555.08		
125	T2L19F		118.00		118.00	118.00		
126	T2L18D		75.00		75.00	75.00		
127	R19		226.00		226.00	226.00		
128	R83	Shiva Marga	125.00		125.00	125.00		
129	T3L10B, T3L7D (R46)	Rangeli Road	400.00		400.00	400.00		
130	T2L19G		60.00		60.00	60.00		
131	R4 (T2 Trunk)	Jatuwa Marga	280.00	100.00	380.00	-	380.00	
132	T3L25B, Outlet	Madhumara	96.00		96.00	96.00		
133	T3L7B	Matrika Marga	150.00		150.00	150.00		
134	T3L5	Sanihat Marga	210.00		210.00	210.00		
135	T2L19H		85.00		85.00	85.00		
136	R181		193.00		193.00	193.00		
137	N38		200.00		200.00	200.00		
138	T3L10C	Paurakh Marga	110.00		110.00	110.00		
139	T3L10F		135.00		135.00	135.00		



SN	Road Number	Name of Road	Length in (m)			Work Completed		Remarks
			Progress		Total	Brick	RCC	
			Previous (Revised)	This Month		m	m	
140	T3L10, R6		340.00		340.00	340.00		
141	R47 (T3L10A)	Matrika Marga	150.00		150.00	150.00		
142	R12	Kanchhadai Marga	450.00		450.00	450.00		
143	R8 (b)	Sahayogi Marga	65.00		65.00	65.00		
144	T1L7A	Piyush Marga	70.00		70.00	70.00		
145	T1L7B				-	-		
146	T1L7C				-	-		
147	T1L8C				-	-		
148	R39	Maisthan Marga	100.00		100.00	100.00		
149	N7	Amar Marga	130.00		130.00	130.00		
150	N8	Amar Marga	160.00		160.00	160.00		
151	R26	Amar Marga	290.00		290.00	290.00		
152	T3L25A	Bhakti Marga	260.00		260.00	260.00		
153	R16, T3L36	Satya Marga	200.00		200.00	200.00		
154	R17, T3L35		100.00		100.00	100.00		
155	T3L20	Janani Marga	200.00		200.00	200.00		
156	N34, T3L31A		80.00		80.00	80.00		
157	T2L19W	Bhugol Marga	50.00		50.00	50.00		
158	T2L19V	Bhugol Marga	90.00		90.00	90.00		
159	T1L8B	School Marga	115.00		115.00	115.00		
	Total		35,316.82	107.00	35,423.82	34,073.82	1,350.00	

Note: at One Sided Drain Road length, in total column the actual length is divided by two to make similarity with others road as in others road the length assumed for both side.



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 at Madhumara Yard 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 camps areas below:



S. No.	Location of Camp	Details	Remarks
1	Amar Tole, Biratnagar – 8	Three storey building in 2.5 Katha land with 5 Nos. of toilet with facilities mentioned in bullet No.: 3.2.3 of this report.	Have proper electric lightning system, water supply,
2	Panchali, Biratnagar – 11	<ul style="list-style-type: none">▪ Office space three & half storey building in 4.5 Katha land with 5 Nos. of toilet with facilities mentioned in bullet No.: 3.2.3 of this report.▪ Staff quarter is of one storey building with 2 Nos. of Toilet with facilities mentioned in bullet No.: 3.2.3 of this report.▪ Staff quarter is of three storey building but only one storey has been taken in rent, having 2 Nos. of Toilet with facilities mentioned in bullet No.: 3.2.3 of this report.	Have proper electric lightning system, water supply,
3	Tinpaini, Biratnagar – 2	Three storey building having land area of 3 Katha with 5 Nos. of toilet and facilities in toilets are mentioned in bullet No.: 3.2.3 of this report.	Have proper electric lightning system, water supply,
4	Rani, Biratnagar – 15	<ul style="list-style-type: none">▪ Yard space in 10 Katha land with 4 Nos. of toilet with facilities mentioned in bullet No.: 3.2.3 of this report.▪ Asphalt plant is having 2 Biggha land possess 6 Nos. of Toilet which are going to use by the gangs of road workers fulfil the criteria mentioned in bullet No.: 3.2.3 of this report.	Have proper electric lightning system, water supply,
5	Madhumara yard	Occupied area of 9 Katha	Have proper electric lightning system, water supply and toilets with facilities mentioned in bullet No.: 3.2.3 of this report.



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 Chisyang.

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 inhabitants 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 / Sub Base / Base works and production of precast items, etc.). 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 frequently 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.

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 (20numbers) 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 are ongoing at R7 (Tinpaini to Sanihat), R3 (R2 to DUDBC Office), & R24, etc. The supply has been providing temporarily as per site condition and where required. Relocation of electric poles are ongoing at N7, T3 Trunk & Rangeli road, etc.

Table – 5: Status of Labor at Site

Labour class	Labour		Composition		Ethnic composition				
	Skilled	Unskilled	Male	Female	Janjati	Dalit	Muslim	Madhesi	Brahmin/Chhetri
Local	6	16	22	0	3	5	0	14	0
Non local	95	308	359	44	117	89	23	174	0
Indian	6	20	26	0	0	0	15	11	0
TOTAL	107	344	407	44	120	94	38	199	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	2 nd November 2017 to 31 st March 2018	261,501,492.21	
3	IPC 03	1 st July 2018	1 st April 2018 to 30 th June 2018	316,582,708.58	
4	IPC 04	1 st October 2018	1 st July 2018 to 31 st September 2019	105,227,887.16	
5	IPC 05	2 nd December 2018	1 st October 2018 to 30 th November 2018	95,951,603.44	
6	IPC 06	31 st January 2019	1 st December 2018 to 31 st January 2019	264,937,394.98	
7	IPC 07	12 th April 2019	1 st February 2019 to 31 st March 2019	308,805,662.97	
8	IPC 08	9 th May 2019	1 st April 2019 to 30 th April 2019	106,210,198.68	
9	IPC 09	10 th June 2019	1 st May 2019 to 31 st May 2019	90,419,375.33	
10	IPC 10	11 th July 2019	1 st June 2019 to 30 th 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	
12	IPC 12	3 rd November 2019	1 st October 2019 to 31 st October 2019	53,113,369.86	



S. No.	Description	Submission date	Covering date	Submitted Amount (NRs)	Remarks
13	IPC 13	30th November 2019	4th June 2019 to 30th June 2019	125,965,923.87	
14	IPC 14	31 st December 2019	1st December 2019 to 31st December 2019	63,509,092.84	
15	IPC 15	4th February 2020	1st Jan 2020 to 31st Jan 2020	232,027,037.24	
Total amount excluding PA & Mobilization advance till date =				2,187,411,101.05	

Note: The contractor asked for cost claim under categories like idle manpower, idle equipment, interest on delay payment, works hampered due to events occurred during various Banda, site possession not available on time and disputes of right of way pursue to clause 2.1, 8.4, 14.8 and 20.1 of GCC/PCC and those are under perusal.



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 inputs, 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.

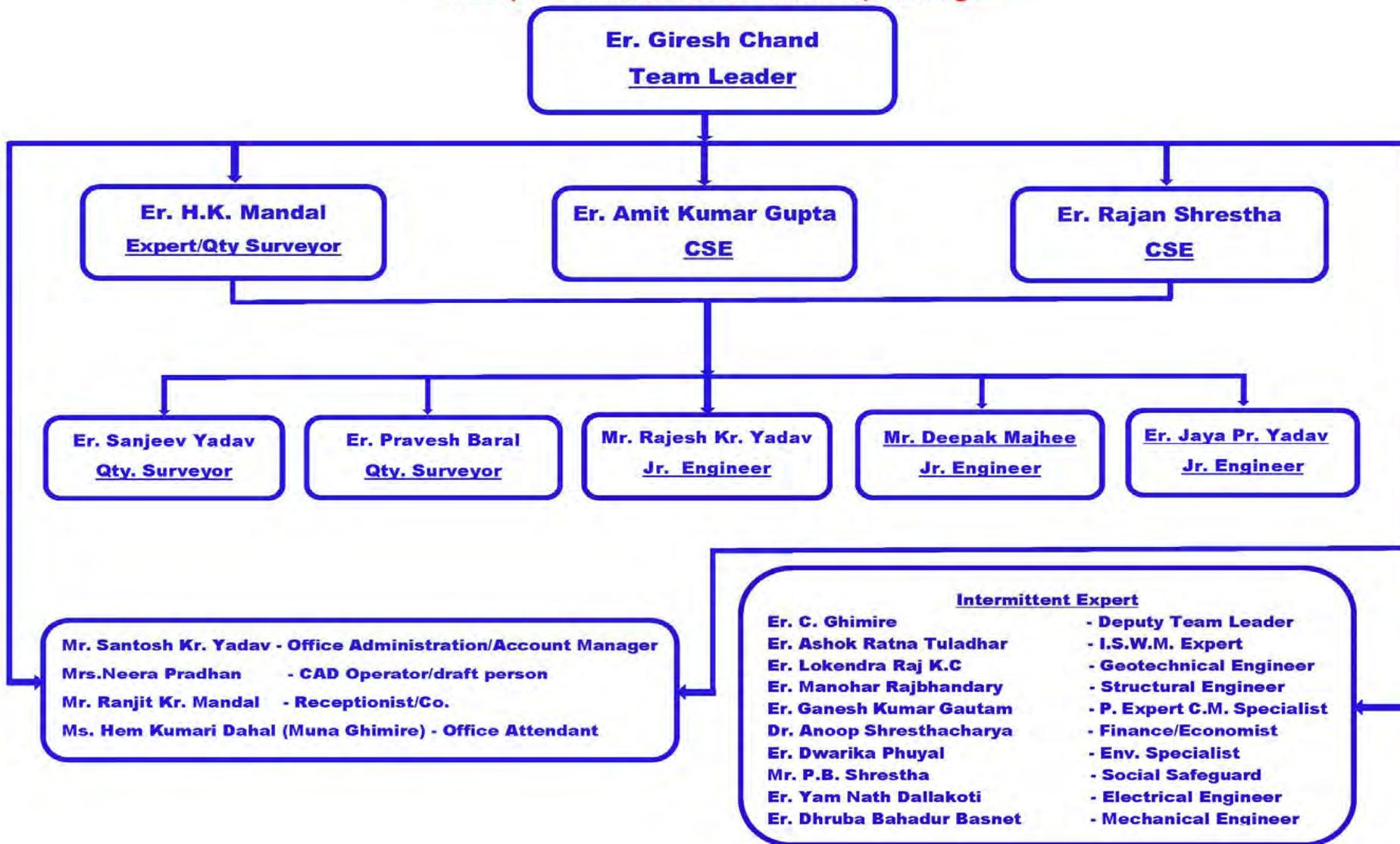


4.3. ORGANIZATION AND STAFFING

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	10th 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 and Madhumara camp for pre-cast items like Kerb stone, drain cover slab, sewer precast elements, etc. But as more than 85% work done so that the production yard at Koshi project has been closed but production at Madhumara camp is 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, as construction of sewer lines are completed so no more RCC NP-3 pipes needed.

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



Month	Target This Month		Achievement This Month		Leading		Lagging		Remarks
	Monthly	Accumulated	Monthly	Accumulated	Monthly	Accumulated	Monthly	Accumulated	
June-19	3.95%	75.03%	2.05%	69.33%				-5.70%	Lagging
July-19	3.90%	78.93%	2.19%	71.52%				-7.41%	Lagging
August-19	4.97%	83.90%	2.01%	73.53%				-10.37%	Lagging
September-19	7.45%	91.35%	4.97%	78.50%	NA	NA	-2.48%	-12.85%	Lagging
October-19	8.56%	99.91%	1.14%	79.64%	NA	NA	-7.42%	-20.27%	Lagging
November-19	0.09%	100.00%	0.33%	79.97%	0.24%	NA	NA	-20.03%	Lagging
December-2019 (after Revision-2)	5.00%	72.98%	5.14%	73.12%	0.14%	0.14%	NA	NA	Leading
January-20	6.00%	78.98%	10.62%	83.74%	4.62%	4.76%	NA	NA	Leading
February-20	6.70%	85.68%	1.48%	85.22%	NA	NA	-5.22%	-0.46%	Leading

5.3. KEYEVENTS

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.	



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		85,951.00	2,000.00	87,951.00	Under progress
2	Kerb Stone	Rm	147,729.68	99,210.80	2,000.00	101,210.80	68.51%

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

Physical Progress till date							
S.N.	Description	Diameter (mm)	Progress			Total to Date (RM.)	Remarks
			BoQ (RM)	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.

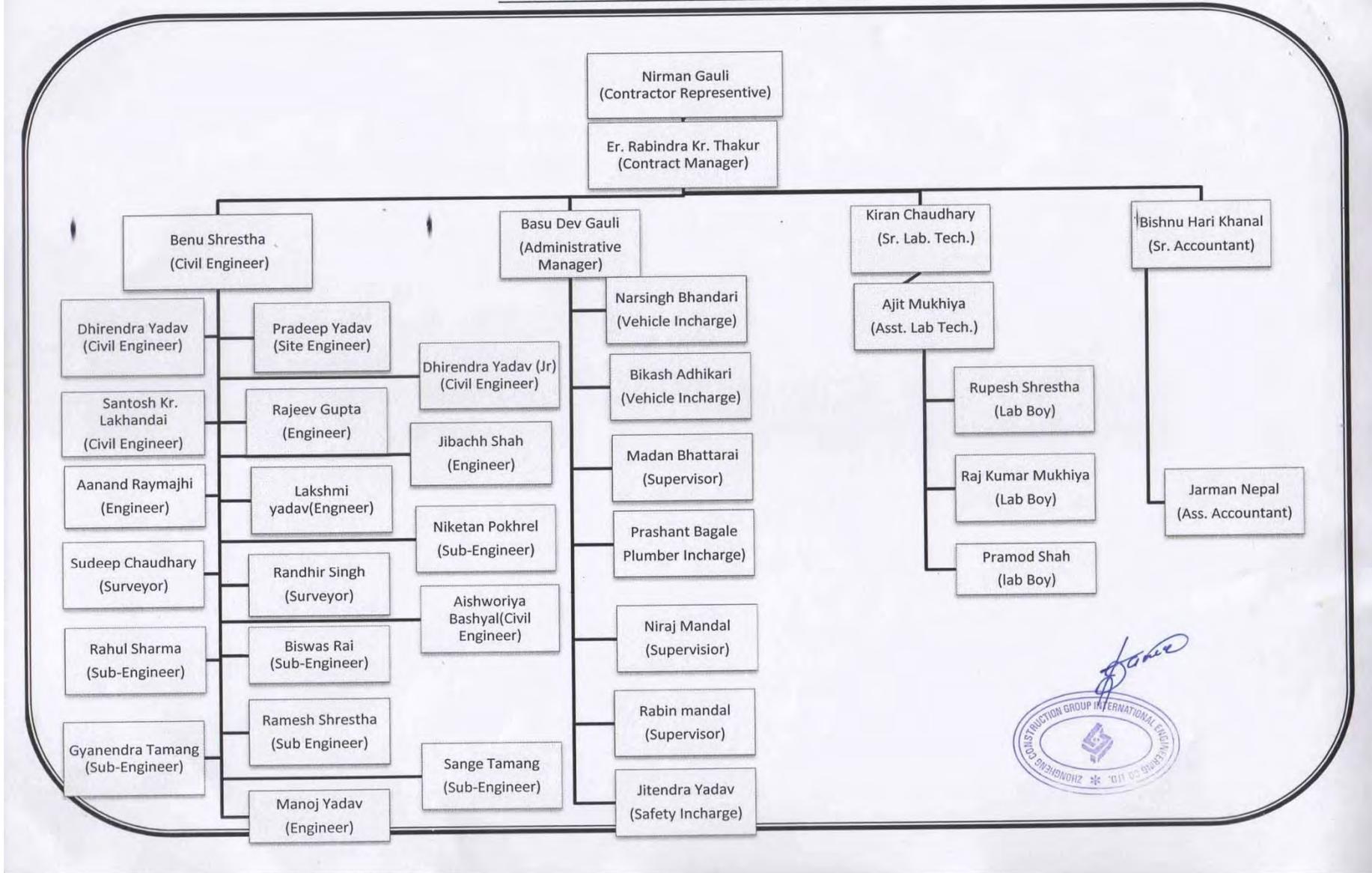
<i>Physical Progress till date</i>							
<i>S.N.</i>	<i>Description</i>	<i>Diameter (mm)</i>	<i>Progress</i>			<i>Total to Date (RM.)</i>	<i>Remarks</i>
			<i>BoQ (RM)</i>	<i>Up to Previous month (RM.)</i>	<i>This Month (RM.)</i>		
1	HDPE Pipe	110.00	1,987.20	4,487.20	-	4,487.20	Under process
2	HDPE 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		5,050.00	
2	UPVC Pipe	110.00	5,050.00	5,050.00		5,050.00	



Details of Contractor's Site Personnel's



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	-	6	
9	Accountant	-	2	
10	Lab Technician	-	5	
11	Store Keeper	-	1	
12	Vehicle In charge	-	2	
13	Skilled Labors		107	
14	Unskilled Labors		344	

8. CONTRACTOR'S EQUIPMENT

Table 14: CONTRACTOR'S EQUIPMENT

S. No.	Equipment Type and Characteristics	Min Number required as per Contract	ZHONGHENG CONSTRUCTION Group	Remarks
1	Excavator (200 above)	5	1	Backhoe loader-9 nos.
2	Crane (10 ton capacity)	3	1	
3	Asphalt plant of adequate capacity	1	1	
4	Asphalt pavers	1	1	
5	Vibrating roller	2	4	Among 4 nos.:- 2 ton rollers – 2 nos.
6	Pneumatic tyre roller 8 to 10 ton	2	1	
7	Smooth wheeled roller 8 to 10 ton	1	1	
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	Tractor = 25 Nos.
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 February, 2020





Interlock work at Sani Haat Chowk



Road Gutter cleansing at B3



Prime work at R4



Asphalt work at R2



Backfilling work for footpath at R44



Road diversion at R2



Completion of road crossing slab concreting at S13



Road Surface prepared for prime coat application at T3L10C

ANNEX-2: Minutes of Meeting February, 2020

Not Any



ANNEX-3: Laboratory Test Results of February, 2020
ATTACHED



REGIONAL URBAN DEVELOPMENT PROJECT

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

Summary Sheet of Field Density Test

Sn.	Lab.Ref.no	Testing Date	Chainage	Moisture content %		Density(gm/cc)		Compaction %	
				OMC%	Field MC%	Max.Dry density gm/cc	Field Dry density, gm/cc	Compaction %	Specified %
				Location:-T2L19Z		Type of Material	Sub-Grade		
1	RUDP-SG-FD-1, R/S	23-Feb-20	0+020	7.15	6.60	1.958	1.891	96.57	95
2	RUDP-SG-FD-1, L/S	23-Feb-20	0+080	7.15	7.36	1.958	1.884	96.21	95
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 Dhirendra Yadav				 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 Field Density Test

Sn.	Lab.Ref.no	Testing Date	Chainage	Moisture content %		Density(gm/cc)		Compaction %							
				OMC%	Field MC%	Max.Dry density gm/cc	Field Dry density, gm/cc	Compaction %	Specified %						
1	RUDP-SG-FD-1, R/S	21-Feb-20	0+020	7.20	6.92	1.920	1.842	95.94	95						
2	RUDP-SG-FD-1, L/S	21-Feb-20	0+080	7.20	7.05	1.920	1.880	97.92	95						
<div style="display: flex; justify-content: space-between;"> <div style="text-align: left;"> <p>Location:-R-106</p> </div> <div style="text-align: right;"> <table border="1"> <tr> <td>Month</td> <td>February</td> </tr> <tr> <td>Year</td> <td>2020</td> </tr> <tr> <td>Type of Material</td> <td>Sub-Grade</td> </tr> </table> </div> </div>										Month	February	Year	2020	Type of Material	Sub-Grade
Month	February														
Year	2020														
Type of Material	Sub-Grade														

<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>
 Checked By Engineer Dhirendra Yadav	 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 Field Density Test

Location:-T3L19H

Sn.	Lab.Ref.no	Testing Date	Change	Moisture content %		Density(gm/cc)		Compaction %	
				OMC%	Field MC%	Max.Dry density gm/cc	Field Dry density, gm/cc	Compaction %	Specified %
1	RUDP-SG-FD-1, L/S	23-Feb-20	0+050	8.25	7.30	1.996	1.919	96.15	95
2	RUDP-SG-FD-1, R/S	23-Feb-20	0+090	8.25	8.16	1.996	1.950	97.68	95
3	RUDP-SG-FD-1, L/S	23-Feb-20	0+130	8.25	8.04	1.996	1.919	96.14	95
<div style="display: flex; justify-content: space-between;"> <div style="border: 1px solid black; padding: 5px;"> <p>Month: February</p> <p>Year: 2020</p> <p>Type of Material: _____</p> <p>Sub-Grade: _____</p> </div> </div>									

<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>
 Checked By Engineer Dhirendra yadav	 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 Field Density Test

Sn.	Lab.Ref.no	Testing Date	Change	Location:-T3L13C					
				Moisture content %		Density (gm/cc)		Compaction %	
				OMC%	Field MC%	Max.Dry density gm/cc	Field Dry density, gm/cc	Compaction %	Specified %
1	RUDP-SG-FD-1, L/S	25-Feb-20	0+020	8.35	8.07	2.010	1.570	97.39	95
2	RUDP-SG-FD-1, R/S	25-Feb-20	0+050	8.35	7.99	2.010	1.947	96.88	95
3	RUDP-SG-FD-1, L/S	25-Feb-20	0+080	8.35	8.40	2.010	1.912	95.14	95
4	RUDP-SG-FD-1, R/S	25-Feb-20	0+100	8.35	7.34	2.010	1.965	97.78	95
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Contractor ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD</p> <p><i>(Signature)</i> Checked By Engineer Dharendra yadav</p> </div> <div style="width: 45%;"> <p>Consultant BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL</p> <p><i>(Signature)</i> Verified By Expert Qty Surveyor/CSE H.K. Mandal/Rajan Shrestha</p> </div> </div>									



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Monthly Test Report

Month:	February
Year	2020
Type of Material	Sub grade

Location:-Rani-prajatantra marg

Sn.	Lab.Ref no.	Location/Chainage	Source of Sample	Date of Testing	MDD	OMC	PI%	CBR%	Remarks
1	RUDP-SG-01	Rani-prajatantra marg.(0+100)	Existing Road	10-Feb-20	1.990	8.30	10.90	8.59	
2	RUDP-SG-02	Rani-prajatantra marg.(0+250)	Existing Road	10-Feb-20	1.982	7.50	8.12	8.38	

<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 Dhirendra yadav</p>	<p>Submitted By Contract Manager Rabindra kr. Thakur</p>	<p>Verified By Expert Qty Surveyor/CSE H.K mandal/Rajan Shrestha</p>	<p>Approved By Team Leader Giresh Chand</p>



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Monthly Test Report

Month:	February
Year	2020
Type of Material	Sub grade

Sn.	Lab.Ref no.	Location of Sample	Source of Sample	Date of Testing	MDD	OMC	PI%	CBR%	Remarks
1	RUDP-S-01	R-3,(5+300)	Existing Road	16-Feb-20	1.970	8.40	11.83	6.60	✓

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 Dhirendra yadav	 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 Field Density Test

Location:-R-27

Month	February
Year	2020
Type of Material	Base

Sn.	Lab.Ref.no	Testing Date	Chainage	Moisture content %		Density(gm/cc)		Compaction %	
				OMC%	Field MC%	Max.Dry density	Field Dry density.	Compaction %	Specified %
1	RUDP-B-FD-1, L/S	12-Feb-20	0+050	5.70	5.88	2.243	2.235	99.63	98
2	RUDP-B-FD-1,R/S	12-Feb-20	0+100	5.70	6.15	2.243	2.219	98.93	98
3	RUDP-B-FD-1, L/S	12-Feb-20	0+150	5.70	5.23	2.243	2.213	98.64	98
4	RUDP-B-FD-1,R/S	12-Feb-20	0+180	5.70	5.56	2.243	2.213	98.65	98

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 Dharendra yadav	 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 Field Density Test

Location:-R-12

Month	February
Year	2020
Type of Material	Base

Sn.	Lab.Ref.no	Testing Date	Chainage	Moisture content %		Density(gm/cc)		Compaction %	
				OMC%	Field MC%	Max.Dry density	Field Dry density,	Compaction %	Specified %
1	RUDP-B-FD-1, R/S	21-Feb-20	1+000	5.75	5.68	2.253	2.252	99.96	98
2	RUDP-B-FD-1, L/S	21-Feb-20	1+040	5.75	5.74	2.253	2.208	98.02	98
3	RUDP-B-FD-1, R/S	21-Feb-20	1+080	5.75	5.18	2.253	2.239	99.39	98
4	RUDP-B-FD-1, L/S	21-Feb-20	1+120	5.75	5.34	2.253	2.244	99.59	98
5	RUDP-B-FD-1, L/S	21-Feb-20	1+60	5.75	5.56	2.253	2.233	99.12	98
6	RUDP-B-FD-1, R/S	21-Feb-20	1+220	5.75	5.68	2.253	2.216	98.36	98
7	RUDP-B-FD-1, L/S	21-Feb-20	1+290	5.75	5.91	2.253	2.218	98.43	98
8	RUDP-B-FD-1, L/S	21-Feb-20	1+320	5.75	5.95	2.253	2.226	98.79	98
9	RUDP-B-FD-1, R/S	21-Feb-20	1+340	5.75	6.21	2.253	2.251	99.92	98

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>	
 Checked By Engineer Dharendra yadav	 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

Daily Application Rate Check for Priming work

SUMMARY FOR THE MONTH OF FEBRUARY 2020

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 (m2)	Intersection Area m2	Total Area M2	Bitumen Consumption (Ltr)	Application Rate By Deep Ltr/m2	Application Rate Bit Tray Test Ltr/m2
1	T3L25C	4-Feb-20	0+170	0+282	Both side	414.40	0.00	414.40	450	1.09	1.05
2	T3L21	4-Feb-20	0+000	0+087	Both Side	589.86	0.00	589.86	625	1.06	1.02
3	R-35	4-Feb-20	0+000	0+142	Both Side	624.80	0.00	624.80	675	1.08	1.06
4	R-8	12-Feb-20	0+000	0+161	Both Side	676.20	0.00	676.20	725	1.07	1.04
5	R-27	12-Feb-20	0+000	0+180	Both Side	703.00	0.00	703.00	750	1.07	1.03
6	T2L18K	12-Feb-20	0+000	0+103	Both Side	370.80	0.00	370.80	400	1.08	1.04
7	R-44	13-Feb-20	0+000	0+104	Both Side	915.20	0.00	915.20	1000	1.09	1.04
8	T3L7B	13-Feb-20	0+000	0+152	Both Side	608.00	0.00	608.00	650	1.07	1.05
9	T3L13F	13-Feb-20	0+000	0+075	Both Side	288.75	0.00	288.75	300	1.04	1.05

Required specification for Prime coat 1.0 Lit/M2 ± 5% Specific Gravity of Bitumen 1.024

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 Dharendra Yadav	Verified By Expert Qty Surveyor/CSE H.K. Mandal/RajanShrestha
Submitted By Contract Manager Rabindra Kr. Thakur	Approved By Team Leader Girish Chand



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 FEBRUARY 2020

Type of Bitumen: 80/100 P.G

Cutter Percentage: MC 70:MC30

Page no 1 of 2

SN NO	Location	Date of Priming	Station From to	Side of Priming	Area of Priming (m2)	Intersection Area m2	Total Area M2	Bitumen Consumption (Ltr)	Application Rate By Deep Ltr/m2	Application Rate Bt Tray Test Ltr/m2
10	B-2	14-Feb-20	0+000 0+330	Both side	3366.00	0.00	3366.00	3650	1.08	1.05
11	R-4	15-Feb-20	0+260 0+440	Both Side	864.00	0.00	864.00	900	1.04	1.06
12	T3L21A	15-Feb-20	0+000 0+060	Both Side	408.00	0.00	408.00	425	1.04	1.06
13	R-3	16-Feb-20	5+914 6+000	Both Side	799.80	0.00	799.80	850	1.06	1.05
14	R-46	19-Feb-20	0+240 0+369	Both Side	1057.80	0.00	1057.80	1150	1.09	1.06
15	R-2	22-Feb-20	0+000 0+317	Both Side	3138.30	0.00	3138.30	3400	1.08	1.05
16	B-2	23-Feb-20	0+330 0+428	Both Side	1158.80	0.00	1158.80	1250	1.08	1.06
17	R-3	23-Feb-20	5+600 5+798	Both Side	1346.40	0.00	1346.40	1450	1.08	1.04
18	R-26	24-Feb-20	0+000 0+300	Both Side	1170.00	0.00	1170.00	1250	1.07	1.04

Required specification for Prime coat 1.0 Lit/M2 ± 5% Specific Gravity of Bitumen 1.024

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
Dhirendra Yadav

Submitted By
Contract Manager
Rabindra Kr. Thakur

Verified By
Expert Qty Surveyor/CSE
H.K. Mandal/RajjanShrestha

Approved By
Team Leader
Girish Chand



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 FEBRUARY 2020

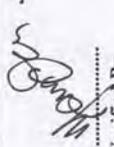
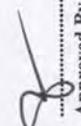
Type of Bitumen: 80/100 P.G
Cutter Percentage: MC 70:MC 30

SN NO	Location	Date of Priming	Station		Side of Priming	Area of Priming (m2)	Intersection Area m2	Total Area M2	Bitumen Consumption (Ltr)	Application Rate By Deep Ltr/m2	Application Rate Bt Tray Test Ltr/m2
			From	to							
19	N-8	25-Feb-20	0+000	0+164	Both side	738.00	0.00	738.00	800	1.08	1.06
20	N-7	25-Feb-20	0+000	0+130	Both Side	572.00	0.00	572.00	625	1.09	1.06
21	R-110	28-Feb-20	0+000	0+254	Both Side	1054.10	0.00	1054.10	1150	1.09	1.06
22	T3L13J	28-Feb-20	0+000	0+080	Both Side	236.80	0.00	236.80	250	1.06	1.05
23	N-38	28-Feb-20	0+000	0+200	Both Side	768.00	0.00	768.00	825	1.07	1.04
24	R-12	29-Feb-20	1+100	1+340	Both Side	1560.00	0.00	1560.00	1700	1.09	1.05
25	T2L26E	29-Feb-20	0+000	0+106	Both Side	312.70	0.00	312.70	325	1.04	1.03
Total									25575		

Required specification for Prime coat 1.0 Lit/M2 ± 5% Specific Gravity of Bitumen 1.024

<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>Checked By Engineer Dhirendra Yadav</p>	<p>Submitted By Contract Manager Rabindra Kr. Thakur</p>
<p>Approved By Team Leader Gireesh Chand</p>	<p>Verified By Expert Qty Surveyor/CSE H.K. Mandal/RajanShrestha</p>



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 FEBRUARY-2020											Page no 1 of 1
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
1	T3L25C	3-Feb-20	0+000	0+170	BHS	765	0	765.00	450	0.59	0.55
2	R-45	3-Feb-20	0+000	0+255	BHS	1815	0	1815	1000	0.55	0.51
3	T3L39	4-Feb-20	0+000	0+090	BHS	628.2	0	628.20	350	0.56	0.52
4	R-46	4-Feb-20	0+000	0+240	BHS	1975.2	0	1975.20	1150	0.58	0.52
5	R-181A	4-Feb-20	0+000	0+192	BHS	806.4	0	806.40	450	0.56	0.50
6	T3L21	6-Feb-20	0+000	0+087	BHS	678.6	0	678.60	400	0.59	0.51
7	T3L25C	6-Feb-20	0+170	0+282	BHS	414.4	0	414.40	250	0.60	0.54
Required tack coat is 0.40 to 0.60Lit/M2 According to Road Note -3,Section 711.2											
Specific Gravity of Bitumen 1.024											
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 Dharendra Yadav						 Submitted By Contract Manager Rabindra Kr. Thakur					
 Checked By Engineer Dharendra Yadav						 Verified By Expert Qty Surveyor/CSE H.K. Mandal/Rajan Shrestha					
 Checked By Engineer Dharendra Yadav						 Approved By Team Leader Giresh 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 FEBRUARY-2020											
Type of Bitumen: 80/100 P.G										Page no 1 of 2	
S.N.	Location	Date of Tack coat	Station From	Station to	Side of Tack coat	Area of Tack coat	Intersection Area m ²	Total Area M ²	Bitumen Consumption	Application Rate By Dip Lit/m ²	Application Rate Bt Tray Test Lit/m ²
8	R-35	6-Feb-20	0+000	0+142	BHS	624.8	0	624.80	350	0.56	0.49
9	R-4	16-Feb-20	0+260	0+440	BHS	864	0	864	500	0.58	0.51
10	R-8	16-Feb-20	0+000	0+161	BHS	644	0	644.00	350	0.54	0.50
11	R-27	16-Feb-20	0+000	0+180	BHS	684	0	684.00	400	0.58	0.53
12	T3L13F	16-Feb-20	0+000	0+075	BHS	288.75	0	288.75	150	0.52	0.49
13	B-2	18-Feb-20	0+000	0+330	BHS	3432	0	3432.00	2000	0.58	0.53
14	R-3	18-Feb-20	5+914	6+000	BHS	799.8	0	799.80	450	0.56	0.54
Required tack coat is 0.40 to 0.60Lit/M2 According to Road Note -3,Section 711.2											
Specific Gravity of Bitumen 1.024											
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 Dharendra Yadav 						Submitted By Contract Manager Rabindra Kr. Thakur 					
Approved By Team Leader Giresh Chand 						Verified By Expert Qty Surveyor/CSE H.K. Mandal/Rajan Shrestha 					



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 FEBRUARY-2020											Page no 1 of 3
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
15	T3L7B	19-Feb-20	0+000	0+152	BHS	608	0	608.00	350	0.58	0.54
16	T3L21A	19-Feb-20	0+000	0+060	BHS	366	0	366	200	0.55	0.50
17	R-44	19-Feb-20	0+000	0+104	BHS	873.6	0	873.60	500	0.57	0.51
18	T2L18K	19-Feb-20	0+000	0+103	BHS	370.8	0	370.80	200	0.54	0.52
19	R-46	22-Feb-20	0+240	0+369	BHS	1057.8	0	1057.80	625	0.59	0.56
20	R-2	24-Feb-20	0+000	0+317	BHS	3183.3	0	3183.30	1800	0.57	0.51
21	B-2	25-Feb-20	0+330	0+428	BHS	1158.8	0	1158.80	700	0.60	0.50
Required tack coat is 0.40 to 0.60Lit/M2 According to Road Note -3,Section 711.2											
Specific Gravity of Bitumen 1.024											
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 Dharendra Yadav 											
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 Daily Application Rate Check for TACK COAT SUMMARY FOR THE MONTH OF FEBRUARY-2020											
Type of Bitumen:80/100 P.G										Page no 1 of 4	
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
22	R-3	25-Feb-20	5+600	5+798	BHS	1346.4	0	1346.40	800	0.59	0.56
23	N-8	27-Feb-20	0+000	0+164	BHS	738	0	738	400	0.54	0.51
24	N-7	27-Feb-20	0+000	0+130	BHS	572	0	572.00	325	0.57	0.53
25	R-26	27-Feb-20	0+000	0+300	BHS	1170	0	1170.00	700	0.60	0.54
								Total	14850		
Required tack coat is 0.40 to 0.50Lit/M2 According to Road Note -3,Section 711.2											
Specific Gravity of Bitumen 1.024											
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 Dhirendra Yadav						Verified By Expert Qty Surveyor/CSE H.K. Mandal/Rajjan 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																
Test Result BY MARSHALL METHOD (AASHTO T 245-78) SUMMARY FOR THE MONTH OF FEBRUARY 2020																
S. No.	LAB REF. NO.	Date of Laying	Location of Work ch:	Mix Agg Gradation % Passing Sieve Sizes mm						Bitumen Content From Extrusion Test %	Mix Density gnu/cc	Air Voids %	VMA %	Stability N	Flow mm	
				20	16	9.5	4.75	2.36	0.6							0.075
1	183	3/2/2020	T31.25C,(0+000 to 0+170)	100	100	78.99	56.08	35.28	17.57	5.74	2.364	3.54	16.80	10379	2.50	
2	184	3/2/2020	R-45,(0+000 to 0+255)	100	100	78.45	57.11	37.05	18.58	7.11	5.80	2.364	16.96	10155	2.35	
3	185	4/2/2020	T31.39,(0+000 to 0+090)	100	100	78.24	55.43	34.42	16.48	5.87	5.77	2.363	16.96	10027	2.40	
4	186	4/2/2020	R-46,(0+000 to 0+240)	100	100	77.92	54.68	33.67	16.37	6.28	5.78	2.360	17.19	10379	2.60	
5	187	4/2/2020	R-181A,(0+000 to 0+192)	100	100	78.78	55.66	35.29	15.98	5.37	5.74	2.365	16.60	9888	2.22	
6	188	6/2/2020	T31.21,(0+000 to 0+087)	100	100	79.11	56.31	35.63	16.22	6.04	5.70	2.369	16.93	10421	2.50	
7	189	6/2/2020	T31.25C,(0+170 to 0+282)	100	100	78.14	56.07	36.45	16.60	6.42	5.75	2.367	16.61	10464	2.38	
8	190	6/2/2020	R-35,(0+000 to 0+142)	100	100	79.41	56.48	35.89	16.04	5.95	5.79	2.372	16.89	11019	2.57	
9	191	16/2/2020	R-4,(0+260 to 0+440)	100	100	79.64	56.96	36.60	16.35	5.96	5.68	2.367	16.45	10880	2.55	
10	192	16/2/2020	R-8,(0+000 to 0+161)	100	100	78.90	56.31	36.27	16.76	6.36	5.70	2.366	16.71	9941	2.32	
11	193	16/2/2020	R-27,(0+000 to 0+180)	100	100	78.99	56.17	36.22	16.91	6.82	5.77	2.367	16.79	10219	2.60	
12	194	16/2/2020	T31.13F,(0+000 to 0+075)	100	100	77.74	56.00	37.45	17.94	7.55	5.68	2.369	16.68	9920	2.25	
13	195	18/2/2020	B-2,(0+000 to 0+330)	100	100	78.79	55.67	36.15	16.85	6.25	5.71	2.369	16.28	10443	2.60	
14	196	18/2/2020	R-3,(5+914 to 6+000)	100	100	78.89	56.08	36.67	17.58	6.76	5.73	2.367	16.38	10133	2.37	
15	197	19/2/2020	T31.7B,(0+000 to 0+152)	100	100	78.15	55.14	35.09	16.53	6.03	5.71	2.367	16.55	9845	2.45	
16	198	19/2/2020	T31.21A,(0+000 to 0+060)	100	100	78.45	55.21	35.05	16.58	6.18	5.78	2.366	16.96	10400	2.60	
17	199	19/2/2020	R-44,(0+000 to 0+104)	100	100	77.72	56.19	36.66	15.87	5.26	5.74	2.370	17.02	10005	2.30	
18	200	19/2/2020	T21.18K,(0+000 to 0+103)	100	100	81.86	57.35	34.65	16.08	7.17	5.74	2.368	17.08	11019	2.67	
19	201	22/2/2020	R-46,(0+240 to 0+369)	100	100	77.74	57.38	35.64	18.15	7.76	5.68	2.367	16.48	10357	2.42	
20	202	24/2/2020	R-2,(0+000 to 0+317)	100	100	82.07	57.68	34.98	16.42	7.51	5.72	2.366	16.46	10155	2.30	
21	203	25/2/2020	B-2,(0+330 to 0+428)	100	100	81.75	57.56	34.96	16.29	7.16	5.75	2.366	16.89	10421	2.55	
22	204	25/2/2020	R-3,(5+600 to 5+798)	100	100	81.97	57.48	34.90	16.66	7.65	5.69	2.365	16.76	9973	2.35	
23	205	27/2/2020	N-8,(0+000 to 0+164)	100	100	81.88	57.61	34.82	16.80	7.58	5.64	2.367	16.34	10379	2.53	
24	206	27/2/2020	N-7,(0+000 to 0+130)	100	100	82.18	58.01	35.74	16.22	7.85	5.70	2.373	16.48	10133	2.27	
25	207	27/2/2020	R-26,(0+000 to 0+300)	100	100	78.25	57.25	35.82	15.13	6.85	5.74	2.366	16.84	10208	2.40	
Specifications				100	100-100	76-82	64-69	33-37	16-21	6 to 9	Min 2.368	3-6%	≥ 16	≥ 8500	2-3	
Job Mix Tolerances from RUDP Specification Tables 4-10				±5%	Nil	±5%	±3%	±2%	±1%	Nil						

REMARKS:

ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD

Contractor

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

Verified By: [Signature] H.K. Mandal/Rajan Shrestha

Submitted By: [Signature] Rabindra Kr. Thakur

Contract Manager

Expert City Subveyor/CSE

Approved By: [Signature] Gireesh Chand

Team Leader



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		
1	RUDP-CS-604	2-Feb-20	T3L25A	Chisang Khola	100.00	94.95	86.97	62.50	45.48	22.07	4.52	0.67	
2	RUDP-CS-605	2-Feb-20	T1L8B	Chisang Khola	100.00	94.53	76.73	53.56	32.25	12.24	5.37	1.11	
3	RUDP-CS-606	4-Feb-20	Madhura Mard	Chisang Khola	100.00	93.98	73.70	52.39	32.22	12.58	5.03	1.92	
4	RUDP-CS-607	4-Feb-20	R-12	Chisang Khola	100.00	94.90	87.51	63.87	39.44	19.44	10.92	1.28	
5	RUDP-CS-608	6-Feb-20	T2L24	Chisang Khola	100.00	94.85	84.68	58.19	36.10	13.37	5.59	0.94	
6	RUDP-CS-609	7-Feb-20	T1L7B	Chisang Khola	100.00	95.35	84.87	57.40	34.00	13.32	5.24	0.88	
7	RUDP-CS-610	9-Feb-20	N-32	Chisang Khola	100.00	92.27	65.01	55.57	32.47	22.62	6.51	1.37	
8	RUDP-CS-611	10-Feb-20	T1L7C	Chisang Khola	100.00	91.04	69.01	56.72	37.84	25.11	7.46	1.79	
9	RUDP-CS-612	10-Feb-20	T1L8C	Chisang Khola	100.00	93.53	81.53	67.41	38.00	21.41	9.41	1.13	
10	RUDP-CS-613	11-Feb-20	R-5	Chisang Khola	100.00	89.55	70.29	44.57	30.94	18.44	8.20	1.41	
11	RUDP-CS-614	11-Feb-20	R-17	Chisang Khola	100.00	97.29	68.74	54.94	35.32	22.33	8.53	1.59	
12	RUDP-CS-615	12-Feb-20	R-46	Chisang Khola	100.00	91.79	67.54	57.39	37.10	26.96	7.73	1.64	
13	RUDP-CS-616	12-Feb-20	T3L10A	Chisang Khola	100.00	91.64	67.97	57.75	37.79	27.11	8.36	1.37	
14	RUDP-CS-617	12-Feb-20	T3L10A	Chisang Khola	100.00	91.15	78.56	48.28	23.95	13.51	6.06	1.25	
15	RUDP-CS-618	13-Feb-20	T3L25A	Chisang Khola	100.00	93.46	74.35	52.72	29.28	14.19	4.63	1.27	
16	RUDP-CS-619	13-Feb-20	N-3	Chisang Khola	100.00	91.01	79.72	53.34	22.07	13.45	7.06	1.20	
17	RUDP-CS-620	14-Feb-20	N-34	Chisang Khola	100.00	92.55	80.45	54.93	20.17	11.48	5.34	1.26	
18	RUDP-CS-621	14-Feb-20	Koshi yard	Chisang Khola	100.00	95.24	67.72	35.51	22.20	14.53	7.67	1.12	
19	RUDP-CS-622	16-Feb-20	R-26	Chisang Khola	100.00	94.13	76.83	55.35	40.25	29.25	8.39	1.49	
Spec. Limit :					100	89-100	60-100	30-100	15-100	5-70	0-15	<3%	

<p>Contractor</p> <p>ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD</p>  <p>Checked By Engineer Dhirendra Yadav</p>	<p>Consultant</p> <p>BUILDING DESIGN AUTHORITY (P) LTD. A JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL</p>  <p>Verified By Expert Qty Surveyor/CSE H.K. Mandal/Rajan Shrestha</p> <p>Submitted By Contract Manager Rabindra K. Thakur</p> <p>Approved By Team Leader Gireesh Chand</p>
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REGIONAL URBAN DEVELOPMENT PROJECT													
Biratnagar Metropolitan City													
Contract No:- RUDP/ICB/BRT-02													
Summary Sheet of Monthly Test Report of 20mm Agg.													
S.n.	Lab.Ref no.	Date of Testing	Location of Sample	Source of Sample	Sieve Size in mm / % Passing by weight					Fl and El %	A.I.V. %	Remarks	
					37.5	20	14	10	5				20 mm Agg
1	RUDP-CA-527	2-Feb-20	T3L25A	Chisang Khola	100.00	95.73	46.29	5.50	2.44	28.84	18.36/14.18	21.11	
2	RUDP-CA-528	3-Feb-20	T1L8B	Chisang Khola	100.00	89.88	24.43	3.97	1.14	24.96	15.98/17.70	18.24	
3	RUDP-CA-529	3-Feb-20	R-12	Chisang Khola	100.00	91.46	25.00	4.10	1.30	26.76	20.46/18.08	19.07	
4	RUDP-CA-530	5-Feb-20	T2L24	Chisang Khola	100.00	89.80	25.40	4.16	1.36	23.18	19.33/19.19	21.28	
5	RUDP-CA-531	6-Feb-20	T1L7C	Chisang Khola	100.00	88.41	26.65	4.75	2.08	24.84	18.51/20.62	21.94	
6	RUDP-CA-532	8-Feb-20	N-32	Chisang Khola	100.00	88.03	38.38	10.07	1.09	26.96	16.65/19.53	21.33	
7	RUDP-CA-533	10-Feb-20	T1L8C	Chisang Khola	100.00	87.45	28.36	5.22	1.18	24.64	19.08/21.35	20.35	
8	RUDP-CA-534	10-Feb-20	R-17	Chisang Khola	100.00	90.97	35.24	4.94	1.22	27.56	17.91/19.68	21.33	
9	RUDP-CA-535	11-Feb-20	R-5	Chisang Khola	100.00	93.64	26.50	10.71	3.41	24.34	18.53/18.07	19.33	
10	RUDP-CA-536	11-Feb-20	R-4	Chisang Khola	100.00	94.32	58.27	14.63	2.25	23.10	21.00/19.07	20.66	
11	RUDP-CA-537	12-Feb-20	Madhumara Yard	Chisang Khola	100.00	90.95	24.70	10.54	2.62	28.30	21.61/18.54	20.43	
12	RUDP-CA-538	12-Feb-20	R-46	Chisang Khola	100.00	89.57	26.02	11.20	2.17	28.76	18.32/17.60	19.72	
13	RUDP-CA-539	13-Feb-20	T3L10A	Chisang Khola	100.00	89.67	18.37	4.07	1.88	27.76	18.38/15.85	19.80	
14	RUDP-CA-540	13-Feb-20	T3L25A	Chisang Khola	100.00	92.61	22.78	3.99	1.62	29.04	19.59/16.79	20.15	
15	RUDP-CA-541	14-Feb-20	N-3	Chisang Khola	100.00	87.29	21.30	3.01	1.35	29.50	19.21/17.48	17.67	
16	RUDP-CA-542	15-Feb-20	N-34	Chisang Khola	100.00	95.31	39.18	5.09	2.43	30.96	19.03/18.00	21.32	
17	RUDP-CA-543	16-Feb-20	R-26	Chisang Khola	100.00	94.65	16.83	6.92	2.14	29.58	18.45/17.04	18.87	
18	RUDP-CA-544	18-Feb-20	S-13C	Chisang Khola	100.00	93.10	23.91	11.16	3.61	29.72	21.31/19.66	18.26	
19	RUDP-CA-545	18-Feb-20	Kostii yard	Chisang Khola	100.00	93.71	23.01	9.71	3.04	28.02	18.47/16.30	18.81	
20	RUDP-CA-546	19-Feb-20	Madhumara Yard	Chisang Khola	100.00	94.00	23.25	10.81	3.27	28.06	20.05/18.17	19.78	
Spec. Limit :					100	0-50	0-25	0-5	0-25	35	25	25	

<p>Contractor</p> <p>ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD</p> <p>Checked By Engineer Dhirendra Yadav</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>Verified By Expert Qty Surveyor/CSE H.K. Mandal/Rajan Shrestha</p> <p>Approved By Team Leader Gireesh Chand</p>
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REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City
Contract No:- RUDP/ICB/BRT-02
SUMMARY SHEET OF CEMENT TEST

S.N.	Lab Ref.no	Type of cement	Tetsing Date	Consistency & Setting Time		Soundness s(mm)	Fineness (%)	Date of Casting	Date of Testing			Strength N/mm ²	Remarks
				Normal Cons.(%)	Initial(Min)				Final (min)	3 Days	28 Days		
1	61	Ambe hi-tech	7-Jan-20					7-Jan-20	3 Days	28 Days	3 days	28 Days	
2	62	Ambe hi-tech	16-Jan-20					16-Jan-20				45.41	
3	63	Ambe hi-tech	25-Jan-20					25-Jan-20				46.13	
4	64	Ambe hi-tech	4-Feb-20	29.20	80.00	235.00	1.83	4-Feb-20				45.62	
5	65	Ambe hi-tech	13-Feb-20	28.75	95.00	245.00	1.78	13-Feb-20				25.72	
												25.51	
											Sp.Limit:	>23	>43

Comments:-

Contractor

ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL
ENGINEERING CO. LTD

Submitted By
Contract Manager
Rabindra kr. Thakur

Checked By
Engineer
Dhirendra yadav

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
Export 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 Monthly Test Report

S.N.	Lab Ref.No.	Testing Date	Location of Sample	Source of Brick	Name of Brick	Water Absorption of Brick(%)	Month	February
							Year	2020
							Type of Material	Brick
1	1075	1-Feb-20	T3L25A	Dadarbairya	ACC	12.79	14.23	
2	1076	2-Feb-20	T1L8B	Dadarbairya	ACC	14.06	13.16	
3	1077	2-Feb-20	R-12	Dadarbairya	ACC	14.21	14.16	
4	1078	2-Feb-20	T2L24	Dadarbairya	ACC	17.10	15.62	
5	1079	3-Feb-20	T1L7B	Dadarbairya	ACC	13.89	12.95	
6	1080	3-Feb-20	N-32	Dadarbairya	Anand	13.33	14.26	
7	1081	3-Feb-20	T1L7C	Dadarbairya	Anand	13.87	13.07	
8	1082	3-Feb-20	T1L8C	Dadarbairya	Anand	14.55	14.28	
9	1083	3-Feb-20	R-12	Dadarbairya	ACC	15.67	14.34	
10	1084	3-Feb-20	R-5	Dadarbairya	ACC	13.10	15.58	
11	1085	4-Feb-20	R-46	Dadarbairya	ACC	13.98	15.44	
12	1086	4-Feb-20	T3L10A	Dadarbairya	Anand	13.66	15.36	
13	1087	4-Feb-20	T3L25A	Dadarbairya	ACC	14.91	13.00	
14	1088	5-Feb-20	N-3	Dadarbairya	ACC	15.47	13.99	
15	1089	5-Feb-20	N-34	Dadarbairya	ACC	13.66	15.45	
16	1090	5-Feb-20	R-26	Dadarbairya	Anand	14.72	15.50	
17	1091	5-Feb-20	S-13C	Dadarbairya	ACC	14.31	14.85	
18	1092	5-Feb-20	T2L24	Dadarbairya	ACC	15.68	14.77	
19	1093	5-Feb-20	R-3	Dadarbairya	ACC	15.62	15.12	
20	1094	6-Feb-20	N-4	Dadarbairya	ACC	13.76	13.74	
21	1095	6-Feb-20	T2L19X	Dadarbairya	ACC	15.75	14.54	
22	1096	6-Feb-20	R-17	Dadarbairya	ACC	14.20	13.55	
23	1097	7-Feb-20	N-32	Dadarbairya	ACC	15.86	15.21	
24	1098	7-Feb-20	T1L7C	Dadarbairya	ACC	14.85	16.39	
25	1099	7-Feb-20	N-32	Dadarbairya	Anand	15.35	15.15	
26	1100	8-Feb-20	T1L7B	Dadarbairya	Anand	16.10	16.41	
27	1101	8-Feb-20	T2L24	Dadarbairya	Anand	16.03	15.63	
28	1102	8-Feb-20	R-12	Dadarbairya	ACC	14.68	16.16	
29	1103	10-Feb-20	T1L8B	Dadarbairya	Anand	14.68	15.22	
30	1104	10-Feb-20	T3L25A	Dadarbairya	Anand	14.33	15.09	
31	1105	10-Feb-20	N-34	Dadarbairya	ACC	14.91	16.60	
32	1106	10-Feb-20	R-26	Dadarbairya	ACC	14.28	15.39	
33	1107	11-Feb-20	S-13C	Dadarbairya	ACC	14.22	14.23	

Sp. Limit <20% >8 to 10 N/mm²

Comments:-

Contractor
 ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD

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Checked By
 Engineer
 Dharendra Yadav

Submitted By
 Contract Manager
 Rabindra Kr. Thakur

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

Approved By
 Team Leader
 Gresh Chand



REGIONAL URBAN DEVELOPMENT PROJECT

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

S.N.	Lab Ref.No.	Testing Date	Location of Sample	Source of Brick	Name of Brick	Water Absorption of Brick(%)	Month	February
							Year	2020
							Type of Material	Brick
							Strength of Brick(N/mm ²)	Remarks
34	1108	12-Feb-20	R-3	Dadarbairya	Anand	15.00	15.76	
35	1109	12-Feb-20	N-4	Dadarbairya	Anand	14.81	16.12	
36	1110	12-Feb-20	T2L19X	Dadarbairya	Anand	14.59	15.25	
37	1111	13-Feb-20	R-17	Dadarbairya	ACC	14.96	15.65	
38	1112	13-Feb-20	T2L24	Dadarbairya	ACC	15.57	15.27	
39	1113	14-Feb-20	T3L10A	Dadarbairya	Anand	13.90	14.98	
40	1114	14-Feb-20	T1L8C	Dadarbairya	Anand	12.13	16.20	
41	1115	14-Feb-20	R-26	Dadarbairya	Anand	14.25	15.05	
42	1116	14-Feb-20	R-46	Dadarbairya	Anand	13.06	16.48	
43	1117	14-Feb-20	T3L25A	Dadarbairya	Anand	16.86	15.01	
44	1118	15-Feb-20	T1L8B	Dadarbairya	Anand	12.61	14.82	
45	1119	15-Feb-20	R-12	Dadarbairya	Anand	13.82	15.04	
46	1120	15-Feb-20	T3L24	Dadarbairya	Anand	12.86	14.96	
47	1121	15-Feb-20	T1L7B	Dadarbairya	Anand	13.32	12.97	
48	1122	15-Feb-20	N-32	Dadarbairya	Anand	13.27	13.48	
49	1123	15-Feb-20	T1L7C	Dadarbairya	ACC	13.09	14.77	
50	1124	15-Feb-20	T1L8C	Dadarbairya	ACC	15.07	12.99	
51	1125	16-Feb-20	R-12	Dadarbairya	ACC	15.53	14.50	
52	1126	16-Feb-20	R-5	Dadarbairya	Anand	14.40	14.39	
53	1127	16-Feb-20	R-46	Dadarbairya	Anand	14.64	12.65	
54	1128	16-Feb-20	T3L10A	Dadarbairya	Anand	14.55	13.92	
55	1129	16-Feb-20	T3L125A	Dadarbairya	Anand	16.08	13.71	
56	1130	17-Feb-20	N-3	Dadarbairya	Anand	14.50	15.00	
57	1131	17-Feb-20	R-26	Dadarbairya	ACC	15.17	14.04	
58	1132	17-Feb-20	S-13C	Dadarbairya	ACC	14.63	14.34	
59	1133	17-Feb-20	T2L24	Dadarbairya	ACC	13.39	15.17	
60	1134	17-Feb-20	R-3	Dadarbairya	ACC	14.38	15.48	
61	1135	17-Feb-20	N-4	Dadarbairya	Anand	14.49	15.02	
62	1136	17-Feb-20	T2L19X	Dadarbairya	Anand	13.70	16.11	
63	1137	18-Feb-20	R-17	Dadarbairya	Anand	14.73	15.18	
64	1138	18-Feb-20	R-46	Dadarbairya	Anand	15.45	15.53	
65	1139	18-Feb-20	R-12	Dadarbairya	ACC	14.40	16.37	
66	1140	18-Feb-20	R-5	Dadarbairya	ACC	12.69	15.63	
Sp. Limit						<20%	>8 to 10 N/mm ²	

Comments:-

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.

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REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Concrete Cube Test Report

Page No 1 of 1

S.N.	Location	Lab Ref.no.	Type of Cement	Brand of Cement	Source of Sand+Agg.	Date of Casting	Month		Year		Concrete Grade
							February		2020		
							Type of Material		Conc. Cube		
							Date of Testing		Strength, N/mm2		
7 Days	28 Days	7 Days	28 Days								
1	TIL7A	RUDP-3001	Ambe Hi-tech	OPC	Chisang Khola	4-Jan-20	11-Jan-20	1-Feb-20	21.56	M20	
2	T3L25A	RUDP-3002	Ambe Hi-tech	OPC	Chisang Khola	4-Jan-20	11-Jan-20	1-Feb-20	22.51	M20	
3	R-12	RUDP-3003	Ambe Hi-tech	OPC	Chisang Khola	4-Jan-20	11-Jan-20	1-Feb-20	22.62	M20	
4	R-46	RUDP-3004	Ambe Hi-tech	OPC	Chisang Khola	4-Jan-20	11-Jan-20	1-Feb-20	22.47	M20	
5	R-16	RUDP-3005	Ambe Hi-tech	OPC	Chisang Khola	4-Jan-20	11-Jan-20	1-Feb-20	21.70	M20	
6	N-31	RUDP-3006	Ambe Hi-tech	OPC	Chisang Khola	4-Jan-20	11-Jan-20	1-Feb-20	23.28	M20	
7	R-12	RUDP-3007	Ambe Hi-tech	OPC	Chisang Khola	4-Jan-20	11-Jan-20	1-Feb-20	23.21	M20	
8	R-82	RUDP-3008	Ambe Hi-tech	OPC	Chisang Khola	5-Jan-20	12-Jan-20	2-Feb-20	22.91	M20	
9	TIL8B	RUDP-3009	Ambe Hi-tech	OPC	Chisang Khola	5-Jan-20	12-Jan-20	2-Feb-20	23.36	M20	
10	N-8	RUDP-3010	Ambe Hi-tech	OPC	Chisang Khola	6-Jan-20	13-Jan-20	3-Feb-20	23.43	M20	
11	R-2	RUDP-3011	Ambe Hi-tech	OPC	Chisang Khola	6-Jan-20	13-Jan-20	3-Feb-20	22.18	M20	
12	N-7	RUDP-3012	Ambe Hi-tech	OPC	Chisang Khola	6-Jan-20	13-Jan-20	3-Feb-20	22.91	M20	
13	Koshi yard	RUDP-3013	Ambe Hi-tech	OPC	Chisang Khola	7-Jan-20	14-Jan-20	4-Feb-20	23.80	M20	
14	Madhumara Yard	RUDP-3014	Ambe Hi-tech	OPC	Chisang Khola	7-Jan-20	14-Jan-20	4-Feb-20	27.30	M25	
15	R-3	RUDP-3015	Ambe Hi-tech	OPC	Chisang Khola	7-Jan-20	14-Jan-20	4-Feb-20	23.21	M20	
16	N-3	RUDP-3016	Ambe Hi-tech	OPC	Chisang Khola	7-Jan-20	14-Jan-20	4-Feb-20	22.62	M20	
17	R-26	RUDP-3017	Ambe Hi-tech	OPC	Chisang Khola	7-Jan-20	14-Jan-20	4-Feb-20	22.15	M20	
18	TIL8B	RUDP-3018	Ambe Hi-tech	OPC	Chisang Khola	8-Jan-20	15-Jan-20	5-Feb-20	22.91	M20	
19	N-8	RUDP-3019	Ambe Hi-tech	OPC	Chisang Khola	8-Jan-20	15-Jan-20	5-Feb-20	23.06	M20	
20	R-5	RUDP-3020	Ambe Hi-tech	OPC	Chisang Khola	8-Jan-20	15-Jan-20	5-Feb-20	23.21	M20	
21	R-4	RUDP-3021	Ambe Hi-tech	OPC	Chisang Khola	8-Jan-20	15-Jan-20	5-Feb-20	23.36	M20	
22	T2L24	RUDP-3022	Ambe Hi-tech	OPC	Chisang Khola	9-Jan-20	16-Jan-20	6-Feb-20	23.95	M20	
23	R-46	RUDP-3023	Ambe Hi-tech	OPC	Chisang Khola	9-Jan-20	16-Jan-20	6-Feb-20	23.06	M20	
24	R-4	RUDP-3024	Ambe Hi-tech	OPC	Chisang Khola	10-Jan-20	17-Jan-20	7-Feb-20	22.81	M20	
25	Madhumara Yard	RUDP-3025	Ambe Hi-tech	OPC	Chisang Khola	10-Jan-20	17-Jan-20	7-Feb-20	27.82	M25	
26	TIL7B	RUDP-3026	Ambe Hi-tech	OPC	Chisang Khola	10-Jan-20	17-Jan-20	7-Feb-20	22.66	M20	
27	R-5	RUDP-3027	Ambe Hi-tech	OPC	Chisang Khola	10-Jan-20	17-Jan-20	7-Feb-20	23.36	M20	
28	Koshi yard	RUDP-3028	Ambe Hi-tech	OPC	Chisang Khola	10-Jan-20	17-Jan-20	7-Feb-20	22.62	M20	
29	T3L10A	RUDP-3029	Ambe Hi-tech	OPC	Chisang Khola	10-Jan-20	17-Jan-20	7-Feb-20	21.71	M20	
30	R-16	RUDP-3030	Ambe Hi-tech	OPC	Chisang Khola	10-Jan-20	17-Jan-20	7-Feb-20	23.18	M20	
31	R-2	RUDP-3031	Ambe Hi-tech	OPC	Chisang Khola	10-Jan-20	17-Jan-20	7-Feb-20	24.17	M20	
32	N-3	RUDP-3032	Ambe Hi-tech	OPC	Chisang Khola	11-Jan-20	18-Jan-20	8-Feb-20	21.71	M20	
33	R-46	RUDP-3033	Ambe Hi-tech	OPC	Chisang Khola	11-Jan-20	18-Jan-20	8-Feb-20	22.91	M20	
34	R-46	RUDP-3034	Ambe Hi-tech	OPC	Chisang Khola	11-Jan-20	18-Jan-20	8-Feb-20	22.69	M20	
35	R-15	RUDP-3035	Ambe Hi-tech	OPC	Chisang Khola	11-Jan-20	18-Jan-20	8-Feb-20	23.06	M20	
36	N-31	RUDP-3036	Ambe Hi-tech	OPC	Chisang Khola	11-Jan-20	18-Jan-20	8-Feb-20	22.91	M20	
37	N-8	RUDP-3037	Ambe Hi-tech	OPC	Chisang Khola	11-Jan-20	18-Jan-20	8-Feb-20	23.28	M20	
38	R-16	RUDP-3038	Ambe Hi-tech	OPC	Chisang Khola	12-Jan-20	19-Jan-20	9-Feb-20	23.13	M20	
39	R-3	RUDP-3039	Ambe Hi-tech	OPC	Chisang Khola	12-Jan-20	19-Jan-20	9-Feb-20	23.03	M20	
40	T3L25A	RUDP-3040	Ambe Hi-tech	OPC	Chisang Khola	12-Jan-20	19-Jan-20	9-Feb-20	21.71	M20	
41	N-3	RUDP-3041	Ambe Hi-tech	OPC	Chisang Khola	13-Jan-20	20-Jan-20	10-Feb-20	22.62	M20	
42	R-46	RUDP-3042	Ambe Hi-tech	OPC	Chisang Khola	13-Jan-20	20-Jan-20	10-Feb-20	23.80	M20	
43	TIL7B	RUDP-3043	Ambe Hi-tech	OPC	Chisang Khola	13-Jan-20	20-Jan-20	10-Feb-20	23.21	M20	
44	R-12	RUDP-3044	Ambe Hi-tech	OPC	Chisang Khola	13-Jan-20	20-Jan-20	10-Feb-20	21.43	M20	
45	T2L24	RUDP-3045	Ambe Hi-tech	OPC	Chisang Khola	14-Jan-20	21-Jan-20	11-Feb-20	21.78	M20	
46	R-82	RUDP-3046	Ambe Hi-tech	OPC	Chisang Khola	14-Jan-20	21-Jan-20	11-Feb-20	23.50	M20	
47	T3L10A	RUDP-3047	Ambe Hi-tech	OPC	Chisang Khola	14-Jan-20	21-Jan-20	11-Feb-20	22.76	M20	

Contractor

Consultant

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

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REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Concrete Cube Test Report

Page No 1 of 2

S.N.	Location	Lab Ref.no.	Type of Cement	Brand of Cement	Source of Sand+Agg.	Date of Casting	Month		February		Concrete Grade
							Year		2020		
							Type of Material		Conc. Cube		
							Date of Testing		Strength, N/mm2		
							7 Days	28 Days			
48	R-26	RUDP-3048	Ambe Hi-tech	OPC	Chisang Khola	14-Jan-20	21-Jan-20	11-Feb-20	23.36	M20	
49	T1L25A	RUDP-3049	Ambe Hi-tech	OPC	Chisang Khola	14-Jan-20	21-Jan-20	11-Feb-20	23.03	M20	
50	R-2	RUDP-3050	Ambe Hi-tech	OPC	Chisang Khola	15-Jan-20	22-Jan-20	12-Feb-20	22.62	M20	
51	Koshi yard	RUDP-3051	Ambe Hi-tech	OPC	Chisang Khola	15-Jan-20	22-Jan-20	12-Feb-20	22.81	M20	
52	Koshi yard	RUDP-3052	Ambe Hi-tech	OPC	Chisang Khola	15-Jan-20	22-Jan-20	12-Feb-20	22.95	M20	
53	Madhumara Yard	RUDP-3053	Ambe Hi-tech	OPC	Chisang Khola	15-Jan-20	22-Jan-20	12-Feb-20	27.91	M25	
54	R-4	RUDP-3054	Ambe Hi-tech	OPC	Chisang Khola	15-Jan-20	22-Jan-20	12-Feb-20	18.80	M15	
55	N-7	RUDP-3055	Ambe Hi-tech	OPC	Chisang Khola	15-Jan-20	22-Jan-20	12-Feb-20	22.11	M20	
56	N-3	RUDP-3056	Ambe Hi-tech	OPC	Chisang Khola	15-Jan-20	22-Jan-20	12-Feb-20	23.18	M20	
57	R-46	RUDP-3057	Ambe Hi-tech	OPC	Chisang Khola	15-Jan-20	22-Jan-20	12-Feb-20	22.81	M20	
58	T3L25A	RUDP-3058	Ambe Hi-tech	OPC	Chisang Khola	15-Jan-20	22-Jan-20	12-Feb-20	23.21	M20	
59	R-15	RUDP-3059	Ambe Hi-tech	OPC	Chisang Khola	15-Jan-20	22-Jan-20	12-Feb-20	22.81	M20	
60	R-12	RUDP-3060	Ambe Hi-tech	OPC	Chisang Khola	15-Jan-20	22-Jan-20	12-Feb-20	22.81	M20	
61	R-5	RUDP-3061	Ambe Hi-tech	OPC	Chisang Khola	16-Jan-20	23-Jan-20	13-Feb-20	23.36	M20	
62	R-84	RUDP-3062	Ambe Hi-tech	OPC	Chisang Khola	16-Jan-20	23-Jan-20	13-Feb-20	23.50	M20	
63	T3L10A	RUDP-3063	Ambe Hi-tech	OPC	Chisang Khola	16-Jan-20	23-Jan-20	13-Feb-20	22.18	M20	
64	T1L7A	RUDP-3064	Ambe Hi-tech	OPC	Chisang Khola	16-Jan-20	23-Jan-20	13-Feb-20	23.21	M20	
65	R-26	RUDP-3065	Ambe Hi-tech	OPC	Chisang Khola	16-Jan-20	23-Jan-20	13-Feb-20	21.96	M20	
66	Koshi Yard	RUDP-3066	Ambe Hi-tech	OPC	Chisang Khola	16-Jan-20	23-Jan-20	13-Feb-20	23.73	M20	
67	Koshi Yard	RUDP-3067	Ambe Hi-tech	OPC	Chisang Khola	16-Jan-20	23-Jan-20	13-Feb-20	32.95	M30	
68	T3L39A	RUDP-3068	Ambe Hi-tech	OPC	Chisang Khola	16-Jan-20	23-Jan-20	13-Feb-20	22.11	M20	
69	N-31	RUDP-3069	Ambe Hi-tech	OPC	Chisang Khola	16-Jan-20	23-Jan-20	13-Feb-20	23.28	M20	
70	T2L24	RUDP-3070	Ambe Hi-tech	OPC	Chisang Khola	16-Jan-20	23-Jan-20	13-Feb-20	22.62	M20	
71	T3L10A	RUDP-3071	Ambe Hi-tech	OPC	Chisang Khola	18-Jan-20	25-Jan-20	15-Feb-20	23.65	M20	
72	T1L8B	RUDP-3072	Ambe Hi-tech	OPC	Chisang Khola	18-Jan-20	25-Jan-20	15-Feb-20	22.96	M20	
73	R-16	RUDP-3073	Ambe Hi-tech	OPC	Chisang Khola	18-Jan-20	25-Jan-20	15-Feb-20	22.66	M20	
74	Madhumara yard	RUDP-3074	Ambe Hi-tech	OPC	Chisang Khola	18-Jan-20	25-Jan-20	15-Feb-20	23.36	M20	
75	R-2	RUDP-3075	Ambe Hi-tech	OPC	Chisang Khola	18-Jan-20	25-Jan-20	15-Feb-20	27.61	M25	
76	R-3	RUDP-3076	Ambe Hi-tech	OPC	Chisang Khola	18-Jan-20	25-Jan-20	15-Feb-20	23.65	M20	
77	R-15	RUDP-3077	Ambe Hi-tech	OPC	Chisang Khola	18-Jan-20	25-Jan-20	15-Feb-20	22.73	M20	
78	T3L39A	RUDP-3078	Ambe Hi-tech	OPC	Chisang Khola	18-Jan-20	25-Jan-20	15-Feb-20	22.03	M20	
79	R-105	RUDP-3079	Ambe Hi-tech	OPC	Chisang Khola	18-Jan-20	25-Jan-20	15-Feb-20	23.43	M20	
80	R-4	RUDP-3080	Ambe Hi-tech	OPC	Chisang Khola	18-Jan-20	25-Jan-20	15-Feb-20	23.43	M20	
81	T1L7A	RUDP-3081	Ambe Hi-tech	OPC	Chisang Khola	19-Jan-20	26-Jan-20	16-Feb-20	17.74	M15	
82	R-2	RUDP-3082	Ambe Hi-tech	OPC	Chisang Khola	19-Jan-20	26-Jan-20	16-Feb-20	23.65	M20	
83	N-7	RUDP-3083	Ambe Hi-tech	OPC	Chisang Khola	19-Jan-20	26-Jan-20	16-Feb-20	22.33	M20	
84	R-5	RUDP-3084	Ambe Hi-tech	OPC	Chisang Khola	19-Jan-20	26-Jan-20	16-Feb-20	22.62	M20	
85	R-3	RUDP-3085	Ambe Hi-tech	OPC	Chisang Khola	19-Jan-20	26-Jan-20	16-Feb-20	22.59	M20	
86	Koshi Yard	RUDP-3086	Ambe Hi-tech	OPC	Chisang Khola	19-Jan-20	26-Jan-20	16-Feb-20	23.28	M20	
87	N-3	RUDP-3087	Ambe Hi-tech	OPC	Chisang Khola	19-Jan-20	26-Jan-20	16-Feb-20	22.03	M20	
88	R-4	RUDP-3088	Ambe Hi-tech	OPC	Chisang Khola	19-Jan-20	26-Jan-20	16-Feb-20	23.36	M20	
89	R-2	RUDP-3089	Ambe Hi-tech	OPC	Chisang Khola	19-Jan-20	26-Jan-20	16-Feb-20	22.95	M20	
90	R-16	RUDP-3090	Ambe Hi-tech	OPC	Chisang Khola	21-Jan-20	28-Jan-20	18-Feb-20	22.73	M20	
91	T2L24	RUDP-3091	Ambe Hi-tech	OPC	Chisang Khola	21-Jan-20	28-Jan-20	18-Feb-20	23.36	M20	
92	T3L25A	RUDP-3092	Ambe Hi-tech	OPC	Chisang Khola	21-Jan-20	28-Jan-20	18-Feb-20	23.21	M20	
93	R-46	RUDP-3093	Ambe Hi-tech	OPC	Chisang Khola	21-Jan-20	28-Jan-20	18-Feb-20	22.73	M20	
94	T1L7B	RUDP-3094	Ambe Hi-tech	OPC	Chisang Khola	21-Jan-20	28-Jan-20	18-Feb-20	22.18	M20	
									23.73	M20	

Contractor
ZHONGHENG CONSTRUCTION GROUP
INTERNATIONAL ENGINEERING CO. LTD

Checked By
 Engineer
 Dharendra Yadav

Submitted By
 Contract Manager
 Rabindra K.Thakur

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
 Giresh Chand



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Concrete Cube Test Report

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S.N.	Location	Lab Ref.no.	Type of Cement	Brand of Cement	Source of Sand+Agg.	Date of Casting	Month		February		Concrete Grade	
							Year		2020			
							Type of Material		Conc. Cube			
							Date of Testing		Strength, N/mm2			
							7 Days	28 Days	7 Days	28 Days		
95	R-12	RUDP-3095	Ambe Hi-tech	OPC	Chisang Khola	21-Jan-20	28-Jan-20	18-Feb-20			21.89	M20
96	N-31	RUDP-3096	Ambe Hi-tech	OPC	Chisang Khola	21-Jan-20	28-Jan-20	18-Feb-20			23.13	M20
97	R-4	RUDP-3097	Ambe Hi-tech	OPC	Chisang Khola	21-Jan-20	28-Jan-20	18-Feb-20			23.13	M20
98	R-5	RUDP-3098	Ambe Hi-tech	OPC	Chisang Khola	21-Jan-20	28-Jan-20	18-Feb-20			22.48	M20
99	R-3	RUDP-3099	Ambe Hi-tech	OPC	Chisang Khola	21-Jan-20	28-Jan-20	18-Feb-20			23.03	M20
100	R-4	RUDP-3100	Ambe Hi-tech	OPC	Chisang Khola	22-Jan-20	29-Jan-20	19-Feb-20			22.78	M20
101	R-4	RUDP-3101	Ambe Hi-tech	OPC	Chisang Khola	22-Jan-20	29-Jan-20	19-Feb-20			18.05	M15
102	Koshi yard	RUDP-3102	Ambe Hi-tech	OPC	Chisang Khola	22-Jan-20	29-Jan-20	19-Feb-20			23.65	M20
103	Koshi yard	RUDP-3103	Ambe Hi-tech	OPC	Chisang Khola	22-Jan-20	29-Jan-20	19-Feb-20			22.26	M20
104	R-2	RUDP-3104	Ambe Hi-tech	OPC	Chisang Khola	22-Jan-20	29-Jan-20	19-Feb-20			23.21	M20
105	R-5	RUDP-3105	Ambe Hi-tech	OPC	Chisang Khola	22-Jan-20	29-Jan-20	19-Feb-20			22.11	M20
106	R-46	RUDP-3106	Ambe Hi-tech	OPC	Chisang Khola	22-Jan-20	29-Jan-20	19-Feb-20			23.28	M20
107	R-12	RUDP-3107	Ambe Hi-tech	OPC	Chisang Khola	22-Jan-20	29-Jan-20	19-Feb-20			22.51	M20
108	T2L24	RUDP-3108	Ambe Hi-tech	OPC	Chisang Khola	22-Jan-20	29-Jan-20	19-Feb-20			22.91	M20
109	R-26	RUDP-3109	Ambe Hi-tech	OPC	Chisang Khola	22-Jan-20	29-Jan-20	19-Feb-20			21.96	M20
110	Koshi yard	RUDP-3110	Ambe Hi-tech	OPC	Chisang Khola	24-Jan-20	31-Jan-20	21-Feb-20			23.43	M20
111	Madhumara yard	RUDP-3111	Ambe Hi-tech	OPC	Chisang Khola	24-Jan-20	31-Jan-20	21-Feb-20			27.01	M25
112	R-16	RUDP-3112	Ambe Hi-tech	OPC	Chisang Khola	24-Jan-20	31-Jan-20	21-Feb-20			23.13	M20
113	N-31	RUDP-3113	Ambe Hi-tech	OPC	Chisang Khola	24-Jan-20	31-Jan-20	21-Feb-20			22.66	M20
114	R-4	RUDP-3114	Ambe Hi-tech	OPC	Chisang Khola	24-Jan-20	31-Jan-20	21-Feb-20			22.44	M20
115	Koshi yard	RUDP-3115	Ambe Hi-tech	OPC	Chisang Khola	24-Jan-20	31-Jan-20	21-Feb-20			32.29	M30
116	Koshi yard	RUDP-3116	Ambe Hi-tech	OPC	Chisang Khola	24-Jan-20	31-Jan-20	21-Feb-20			22.33	M20
117	R-12	RUDP-3117	Ambe Hi-tech	OPC	Chisang Khola	24-Jan-20	31-Jan-20	21-Feb-20			23.36	M20
118	N-31	RUDP-3118	Ambe Hi-tech	OPC	Chisang Khola	24-Jan-20	31-Jan-20	21-Feb-20			22.66	M20
119	T3L25A	RUDP-3119	Ambe Hi-tech	OPC	Chisang Khola	24-Jan-20	31-Jan-20	21-Feb-20			22.99	M20
120	T2L24	RUDP-3120	Ambe Hi-tech	OPC	Chisang Khola	24-Jan-20	31-Jan-20	21-Feb-20			22.33	M20
121	T3L25A	RUDP-3121	Ambe Hi-tech	OPC	Chisang Khola	25-Jan-20	1-Feb-20	22-Feb-20	15.65		22.66	M20
122	T1L8B	RUDP-3122	Ambe Hi-tech	OPC	Chisang Khola	25-Jan-20	1-Feb-20	22-Feb-20	17.59		23.28	M20
123	R-12	RUDP-3123	Ambe Hi-tech	OPC	Chisang Khola	25-Jan-20	1-Feb-20	22-Feb-20	18.19		22.99	M20
124	T2L24	RUDP-3124	Ambe Hi-tech	OPC	Chisang Khola	25-Jan-20	1-Feb-20	22-Feb-20	16.84		21.83	M20
125	R-46	RUDP-3125	Ambe Hi-tech	OPC	Chisang Khola	26-Jan-20	2-Feb-20	23-Feb-20	18.19		23.13	M20
126	T1L7B	RUDP-3126	Ambe Hi-tech	OPC	Chisang Khola	26-Jan-20	2-Feb-20	23-Feb-20	15.05		21.86	M20
127	T2L18C	RUDP-3127	Ambe Hi-tech	OPC	Chisang Khola	26-Jan-20	2-Feb-20	23-Feb-20	17.67		22.51	M20
128	N-32	RUDP-3128	Ambe Hi-tech	OPC	Chisang Khola	26-Jan-20	2-Feb-20	23-Feb-20	18.11		23.13	M20
129	T1L7C	RUDP-3129	Ambe Hi-tech	OPC	Chisang Khola	26-Jan-20	2-Feb-20	23-Feb-20	15.73		23.21	M20
130	T1L8C	RUDP-3130	Ambe Hi-tech	OPC	Chisang Khola	26-Jan-20	2-Feb-20	23-Feb-20	14.90		22.03	M20
131	R-4	RUDP-3131	Ambe Hi-tech	OPC	Chisang Khola	26-Jan-20	2-Feb-20	23-Feb-20	13.93		17.21	M15
132	Koshi yard	RUDP-3132	Ambe Hi-tech	OPC	Chisang Khola	26-Jan-20	2-Feb-20	23-Feb-20	17.67		24.10	M20
133	R-17	RUDP-3133	Ambe Hi-tech	OPC	Chisang Khola	27-Jan-20	3-Feb-20	24-Feb-20	15.43		22.73	M20
134	R-4	RUDP-3134	Ambe Hi-tech	OPC	Chisang Khola	27-Jan-20	3-Feb-20	24-Feb-20	16.18		23.43	M20
135	B-2	RUDP-3135	Ambe Hi-tech	OPC	Chisang Khola	27-Jan-20	3-Feb-20	24-Feb-20	16.92		22.44	M20
136	R-5	RUDP-3136	Ambe Hi-tech	OPC	Chisang Khola	27-Jan-20	3-Feb-20	24-Feb-20	16.54		22.66	M20
137	R-44	RUDP-3137	Ambe Hi-tech	OPC	Chisang Khola	27-Jan-20	3-Feb-20	24-Feb-20	14.46		23.03	M20
138	T3L10A	RUDP-3138	Ambe Hi-tech	OPC	Chisang Khola	27-Jan-20	3-Feb-20	24-Feb-20	16.02		22.48	M20
139	R-4	RUDP-3139	Ambe Hi-tech	OPC	Chisang Khola	28-Jan-20	4-Feb-20	25-Feb-20	15.50		23.65	M20
140	T3L25A	RUDP-3140	Ambe Hi-tech	OPC	Chisang Khola	28-Jan-20	4-Feb-20	25-Feb-20	17.97		23.13	M20
141	B-2	RUDP-3141	Ambe Hi-tech	OPC	Chisang Khola	28-Jan-20	4-Feb-20	25-Feb-20	18.12		23.65	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 PDUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL	
Checked By Engineer Dharendra Yadav	Submitted By Contract Manager Rabindra K.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 Concrete Cube Test Report

Page No 1 of 4

S.N.	Location	Lab Ref.no.	Type of Cement	Brand of Cement	Source of Sand+Agg.	Date of Casting	Month		Year		Concrete Grade
							February		2020		
							Type of Material		Conc. Cube		
							Date of Testing		Strength, N/mm2		
						7 Days	28 Days	7 Days	28 Days		
142	N-3	RUDP-3142	Ambe Hi-tech	OPC	Chisang Khola	29-Jan-20	5-Feb-20	26-Feb-20	16.70	23.06	M20
143	R-44	RUDP-3143	Ambe Hi-tech	OPC	Chisang Khola	29-Jan-20	5-Feb-20	26-Feb-20	15.05	22.73	M20
144	R-4	RUDP-3144	Ambe Hi-tech	OPC	Chisang Khola	29-Jan-20	5-Feb-20	26-Feb-20	17.06	22.26	M20
145	R-26	RUDP-3145	Ambe Hi-tech	OPC	Chisang Khola	29-Jan-20	5-Feb-20	26-Feb-20	16.84	22.66	M20
146	S-13C	RUDP-3146	Ambe Hi-tech	OPC	Chisang Khola	29-Jan-20	5-Feb-20	26-Feb-20	17.14	22.07	M20
147	B-2	RUDP-3147	Ambe Hi-tech	OPC	Chisang Khola	30-Jan-20	6-Feb-20	27-Feb-20	14.75	23.06	M20
148	T2L24	RUDP-3148	Ambe Hi-tech	OPC	Chisang Khola	30-Jan-20	6-Feb-20	27-Feb-20	17.44	22.11	M20
149	R-4	RUDP-3149	Ambe Hi-tech	OPC	Chisang Khola	30-Jan-20	6-Feb-20	27-Feb-20	14.83	22.91	M20
150	Madhumara Yard	RUDP-3150	Ambe Hi-tech	OPC	Chisang Khola	30-Jan-20	6-Feb-20	27-Feb-20	21.78	26.86	M25
151	R-3	RUDP-3151	Ambe Hi-tech	OPC	Chisang Khola	31-Jan-20	7-Feb-20	28-Feb-20	16.77	22.11	M20
152	R-4	RUDP-3152	Ambe Hi-tech	OPC	Chisang Khola	31-Jan-20	7-Feb-20	28-Feb-20	14.75	22.51	M20
153	T2L19X	RUDP-3153	Ambe Hi-tech	OPC	Chisang Khola	31-Jan-20	7-Feb-20	28-Feb-20	15.65	23.20	M20
154	Koshi Yard	RUDP-3154	Ambe Hi-tech	OPC	Chisang Khola	31-Jan-20	7-Feb-20	28-Feb-20	18.05	22.11	M20
155	R-44	RUDP-3155	Ambe Hi-tech	OPC	Chisang Khola	31-Jan-20	7-Feb-20	28-Feb-20	17.59	22.76	M20
156	S-13C	RUDP-3156	Ambe Hi-tech	OPC	Chisang Khola	31-Jan-20	7-Feb-20	28-Feb-20	17.06	21.95	M20
157	R-4	RUDP-3157	Ambe Hi-tech	OPC	Chisang Khola	31-Jan-20	7-Feb-20	28-Feb-20	17.36	23.93	M20
158	T3L10A	RUDP-3158	Ambe Hi-tech	OPC	Chisang Khola	1-Feb-20	8-Feb-20	29-Feb-20	16.99	22.03	M20
159	R-3	RUDP-3159	Ambe Hi-tech	OPC	Chisang Khola	1-Feb-20	8-Feb-20	29-Feb-20	17.90	22.84	M20
160	N-34	RUDP-3160	Ambe Hi-tech	OPC	Chisang Khola	1-Feb-20	8-Feb-20	29-Feb-20	17.59	22.66	M20
161	T3L21B	RUDP-3161	Ambe Hi-tech	OPC	Chisang Khola	1-Feb-20	8-Feb-20	29-Feb-20	16.99	22.54	M20
162	R-2	RUDP-3162	Ambe Hi-tech	OPC	Chisang Khola	2-Feb-20	9-Feb-20	1-Mar-20	15.87		M20
163	R-26	RUDP-3163	Ambe Hi-tech	OPC	Chisang Khola	2-Feb-20	9-Feb-20	1-Mar-20	17.82		M20
164	T1L7B	RUDP-3164	Ambe Hi-tech	OPC	Chisang Khola	2-Feb-20	9-Feb-20	1-Mar-20	15.80		M20
165	R-17	RUDP-3165	Ambe Hi-tech	OPC	Chisang Khola	2-Feb-20	9-Feb-20	1-Mar-20	16.84		M20
166	R-5	RUDP-3166	Ambe Hi-tech	OPC	Chisang Khola	3-Feb-20	10-Feb-20	2-Mar-20	17.52		M20
167	T3L25B	RUDP-3167	Ambe Hi-tech	OPC	Chisang Khola	3-Feb-20	10-Feb-20	2-Mar-20	16.26		M20
168	T1L8B	RUDP-3168	Ambe Hi-tech	OPC	Chisang Khola	3-Feb-20	10-Feb-20	2-Mar-20	15.87		M20
169	Madhumara Yard	RUDP-3169	Ambe Hi-tech	OPC	Chisang Khola	3-Feb-20	10-Feb-20	2-Mar-20	18.34		M25
170	Koshi Yard	RUDP-3170	Ambe Hi-tech	OPC	Chisang Khola	4-Feb-20	11-Feb-20	3-Mar-20	17.36		M20
171	T1L7C	RUDP-3171	Ambe Hi-tech	OPC	Chisang Khola	4-Feb-20	11-Feb-20	3-Mar-20	15.20		M20
172	R-4	RUDP-3172	Ambe Hi-tech	OPC	Chisang Khola	4-Feb-20	11-Feb-20	3-Mar-20	13.35		M15
173	T1L25A	RUDP-3173	Ambe Hi-tech	OPC	Chisang Khola	5-Feb-20	12-Feb-20	4-Mar-20	16.25		M20
174	R-3	RUDP-3174	Ambe Hi-tech	OPC	Chisang Khola	5-Feb-20	12-Feb-20	4-Mar-20	16.92		M20
175	N-34	RUDP-3175	Ambe Hi-tech	OPC	Chisang Khola	5-Feb-20	12-Feb-20	4-Mar-20	14.90		M20
176	T3L21B	RUDP-3176	Ambe Hi-tech	OPC	Chisang Khola	6-Feb-20	13-Feb-20	5-Mar-20	16.17		M20
177	T3L25A	RUDP-3177	Ambe Hi-tech	OPC	Chisang Khola	6-Feb-20	13-Feb-20	5-Mar-20	17.37		M20
178	R-2	RUDP-3178	Ambe Hi-tech	OPC	Chisang Khola	6-Feb-20	13-Feb-20	5-Mar-20	15.28		M20
179	T2L24	RUDP-3179	Ambe Hi-tech	OPC	Chisang Khola	6-Feb-20	13-Feb-20	5-Mar-20	16.77		M20
180	T3L25A	RUDP-3180	Ambe Hi-tech	OPC	Chisang Khola	7-Feb-20	14-Feb-20	6-Mar-20	14.76		M20
181	T1L7B	RUDP-3181	Ambe Hi-tech	OPC	Chisang Khola	7-Feb-20	14-Feb-20	6-Mar-20	15.72		M20
182	R-3	RUDP-3182	Ambe Hi-tech	OPC	Chisang Khola	7-Feb-20	14-Feb-20	6-Mar-20	15.28		M20
183	T2L24	RUDP-3183	Ambe Hi-tech	OPC	Chisang Khola	7-Feb-20	14-Feb-20	6-Mar-20	14.75		M20
184	R-4	RUDP-3184	Ambe Hi-tech	OPC	Chisang Khola	8-Feb-20	15-Feb-20	7-Mar-20	13.64		M15
185	R-2	RUDP-3185	Ambe Hi-tech	OPC	Chisang Khola	8-Feb-20	15-Feb-20	7-Mar-20	16.92		M20
186	Koshi Yard	RUDP-3186	Ambe Hi-tech	OPC	Chisang Khola	8-Feb-20	15-Feb-20	7-Mar-20	16.39		M20
187	Madhumara Yard	RUDP-3187	Ambe Hi-tech	OPC	Chisang Khola	8-Feb-20	15-Feb-20	7-Mar-20	18.48		M25
188	Madhumara Yard	RUDP-3188	Ambe Hi-tech	OPC	Chisang Khola	8-Feb-20	15-Feb-20	7-Mar-20	23.36		M30

<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 Dhirendra Yadav</p>	<p>Submitted By Contract Manager Rabindra K.Thakur</p>	<p>Verified By Expert Qty Surveyor/CSE H.K. Mandal/Rajan Shrestha</p>	<p>Approved By Team Leader Giresh Chand</p>



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Concrete Cube Test Report

Page No 1 of 5

S.N.	Location	Lab Ref.no.	Type of Cement	Brand of Cement	Source of Sand+Agg.	Date of Casting	Month		February		Concrete Grade
							Year		2020		
							Type of Material		Conc. Cube		
							Date of Testing		Strength, N/mm ²		
		7 Days	28 Days	7 Days	28 Days						
189	R-12	RUDP-3189	Ambe Hi-tech	OPC	Chisang Khola	8-Feb-20	15-Feb-20	7-Mar-20	15.35		M20
190	N-4	RUDP-3190	Ambe Hi-tech	OPC	Chisang Khola	9-Feb-20	16-Feb-20	8-Mar-20	15.80		M20
191	T3L10A	RUDP-3191	Ambe Hi-tech	OPC	Chisang Khola	9-Feb-20	16-Feb-20	8-Mar-20	15.20		M20
192	Koshi Yard	RUDP-3192	Ambe Hi-tech	OPC	Chisang Khola	9-Feb-20	16-Feb-20	8-Mar-20	14.61		M20
193	R-4	RUDP-3193	Ambe Hi-tech	OPC	Chisang Khola	9-Feb-20	16-Feb-20	8-Mar-20	13.86		M15
194	R-26	RUDP-3194	Ambe Hi-tech	OPC	Chisang Khola	10-Feb-20	17-Feb-20	9-Mar-20	15.05		M20
195	Madhumara Yard	RUDP-3195	Ambe Hi-tech	OPC	Chisang Khola	10-Feb-20	17-Feb-20	9-Mar-20	17.98		M25
196	Koshi Yard	RUDP-3196	Ambe Hi-tech	OPC	Chisang Khola	10-Feb-20	17-Feb-20	9-Mar-20	15.95		M20
197	T2L19X	RUDP-3197	Ambe Hi-tech	OPC	Chisang Khola	10-Feb-20	17-Feb-20	9-Mar-20	14.75		M20
198	R-17	RUDP-3198	Ambe Hi-tech	OPC	Chisang Khola	11-Feb-20	18-Feb-20	10-Mar-20	15.20		M20
199	R-4	RUDP-3199	Ambe Hi-tech	OPC	Chisang Khola	11-Feb-20	18-Feb-20	10-Mar-20	16.55		M20
200	R-4	RUDP-3200	Ambe Hi-tech	OPC	Chisang Khola	12-Feb-20	19-Feb-20	11-Mar-20	14.38		M15
201	T1L7C	RUDP-3201	Ambe Hi-tech	OPC	Chisang Khola	12-Feb-20	19-Feb-20	11-Mar-20	16.54		M20
202	T2L24	RUDP-3202	Ambe Hi-tech	OPC	Chisang Khola	12-Feb-20	19-Feb-20	11-Mar-20	16.69		M20
203	Madhumara Yard	RUDP-3203	Ambe Hi-tech	OPC	Chisang Khola	12-Feb-20	19-Feb-20	11-Mar-20	20.66		M25
204	R-4	RUDP-3204	Ambe Hi-tech	OPC	Chisang Khola	12-Feb-20	19-Feb-20	11-Mar-20	16.02		M20
205	R-4	RUDP-3205	Ambe Hi-tech	OPC	Chisang Khola	13-Feb-20	20-Feb-20	12-Mar-20	14.08		M15
206	T1L7B	RUDP-3206	Ambe Hi-tech	OPC	Chisang Khola	13-Feb-20	20-Feb-20	12-Mar-20	16.77		M20
207	Koshi Yard	RUDP-3207	Ambe Hi-tech	OPC	Chisang Khola	13-Feb-20	20-Feb-20	12-Mar-20	15.80		M20
208	T2L24	RUDP-3208	Ambe Hi-tech	OPC	Chisang Khola	14-Feb-20	21-Feb-20	13-Mar-20	15.43		M20
209	T1L8C	RUDP-3209	Ambe Hi-tech	OPC	Chisang Khola	16-Feb-20	23-Feb-20	15-Mar-20	16.10		M20
210	N-3	RUDP-3210	Ambe Hi-tech	OPC	Chisang Khola	16-Feb-20	23-Feb-20	15-Mar-20	14.68		M20
211	Madhumara Yard	RUDP-3211	Ambe Hi-tech	OPC	Chisang Khola	16-Feb-20	23-Feb-20	15-Mar-20	19.62		M25
212	T1L8B	RUDP-3212	Ambe Hi-tech	OPC	Chisang Khola	16-Feb-20	23-Feb-20	15-Mar-20	15.35		M20
213	R-12	RUDP-3213	Ambe Hi-tech	OPC	Chisang Khola	17-Feb-20	24-Feb-20	16-Mar-20	15.28		M20
214	R-4	RUDP-3214	Ambe Hi-tech	OPC	Chisang Khola	17-Feb-20	24-Feb-20	16-Mar-20	12.42		M15
215	T2L19X	RUDP-3215	Ambe Hi-tech	OPC	Chisang Khola	17-Feb-20	24-Feb-20	16-Mar-20	16.17		M20
216	R-12	RUDP-3216	Ambe Hi-tech	OPC	Chisang Khola	17-Feb-20	24-Feb-20	16-Mar-20	17.06		M20
217	Koshi Yard	RUDP-3217	Ambe Hi-tech	OPC	Chisang Khola	17-Feb-20	24-Feb-20	16-Mar-20	14.61		M20
218	T3L25A	RUDP-3218	Ambe Hi-tech	OPC	Chisang Khola	19-Feb-20	26-Feb-20	18-Mar-20	15.72		M20
219	R-5	RUDP-3219	Ambe Hi-tech	OPC	Chisang Khola	19-Feb-20	26-Feb-20	18-Mar-20	14.98		M20
220	R-4	RUDP-3220	Ambe Hi-tech	OPC	Chisang Khola	20-Feb-20	27-Feb-20	19-Mar-20	14.12		M15
221	Madhumara Yard	RUDP-3221	Ambe Hi-tech	OPC	Chisang Khola	20-Feb-20	27-Feb-20	19-Mar-20	17.67		M25
222	S-13C	RUDP-3222	Ambe Hi-tech	OPC	Chisang Khola	20-Feb-20	27-Feb-20	19-Mar-20	15.13		M20
223	T2L24	RUDP-3223	Ambe Hi-tech	OPC	Chisang Khola	20-Feb-20	27-Feb-20	19-Mar-20	14.68		M20
224	R-26	RUDP-3224	Ambe Hi-tech	OPC	Chisang Khola	21-Feb-20	28-Feb-20	20-Mar-20	15.72		M20
225	N-32	RUDP-3225	Ambe Hi-tech	OPC	Chisang Khola	21-Feb-20	28-Feb-20	20-Mar-20	14.90		M20
226	R-4	RUDP-3226	Ambe Hi-tech	OPC	Chisang Khola	21-Feb-20	28-Feb-20	20-Mar-20	14.16		M15
227	T3L10A	RUDP-3227	Ambe Hi-tech	OPC	Chisang Khola	21-Feb-20	28-Feb-20	20-Mar-20	15.57		M20
228	N-34	RUDP-3228	Ambe Hi-tech	OPC	Chisang Khola	22-Feb-20	29-Feb-20	21-Mar-20	16.47		M20
229	Koshi Yard	RUDP-3229	Ambe Hi-tech	OPC	Chisang Khola	22-Feb-20	29-Feb-20	21-Mar-20	16.84		M20
230	T1L7C	RUDP-3230	Ambe Hi-tech	OPC	Chisang Khola	22-Feb-20	29-Feb-20	21-Mar-20	15.43		M20
231	R-26	RUDP-3231	Ambe Hi-tech	OPC	Chisang Khola	22-Feb-20	29-Feb-20	21-Mar-20	15.28		M20
232	N-3	RUDP-3232	Ambe Hi-tech	OPC	Chisang Khola	22-Feb-20	29-Feb-20	21-Mar-20	16.84		M20
233	N-4	RUDP-3233	Ambe Hi-tech	OPC	Chisang Khola	22-Feb-20	29-Feb-20	21-Mar-20	15.80		M20
234	T1L7B	RUDP-3234	Ambe Hi-tech	OPC	Chisang Khola	22-Feb-20	29-Feb-20	21-Mar-20	17.06		M20
235											M20

<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 Dhirendra Yadav</p>	<p>Submitted By Contract Manager Rabindra K.Thakur</p>	<p>Verified By Expert Qty Surveyor/CSE H.K. Mandal/Rajan Shrestha</p>	<p>Approved By Team Leader Giresh Chand</p>



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Mortar Test Report

Page no. 1 of 1

Month February

Year 2020

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	T3L25A	MR-2497	Ambe Hi-tech	
2	R-26	MR-2498	Ambe Hi-tech	OPC	Chisang Khola	4-Jan-20	11-Jan-20	1-Feb-20	8.09	7.5	
3	R-5	MR-2499	Ambe Hi-tech	OPC	Chisang Khola	4-Jan-20	11-Jan-20	1-Feb-20	8.23	7.5	
4	N-8	MR-2500	Ambe Hi-tech	OPC	Chisang Khola	4-Jan-20	11-Jan-20	1-Feb-20	8.36	7.5	
5	N-7	MR-2501	Ambe Hi-tech	OPC	Chisang Khola	5-Jan-20	12-Jan-20	2-Feb-20	8.90	7.5	
6	R-12	MR-2502	Ambe Hi-tech	OPC	Chisang Khola	5-Jan-20	12-Jan-20	2-Feb-20	8.09	7.5	
7	N-32	MR-2503	Ambe Hi-tech	OPC	Chisang Khola	5-Jan-20	12-Jan-20	2-Feb-20	8.63	7.5	
8	T3L10A	MR-2504	Ambe Hi-tech	OPC	Chisang Khola	5-Jan-20	12-Jan-20	2-Feb-20	8.36	7.5	
9	R-26	MR-2505	Ambe Hi-tech	OPC	Chisang Khola	6-Jan-20	13-Jan-20	3-Feb-20	8.63	7.5	
10	R-16	MR-2506	Ambe Hi-tech	OPC	Chisang Khola	6-Jan-20	13-Jan-20	3-Feb-20	8.23	7.5	
11	N-31	MR-2507	Ambe Hi-tech	OPC	Chisang Khola	6-Jan-20	13-Jan-20	3-Feb-20	9.04	7.5	
12	T1L7A	MR-2508	Ambe Hi-tech	OPC	Chisang Khola	6-Jan-20	13-Jan-20	3-Feb-20	7.96	7.5	
13	N-8	MR-2509	Ambe Hi-tech	OPC	Chisang Khola	6-Jan-20	13-Jan-20	3-Feb-20	9.17	7.5	
14	R-46	MR-2510	Ambe Hi-tech	OPC	Chisang Khola	7-Jan-20	14-Jan-20	4-Feb-20	8.50	7.5	
15	T3L25A	MR-2511	Ambe Hi-tech	OPC	Chisang Khola	7-Jan-20	14-Jan-20	4-Feb-20	8.90	7.5	
16	T2L24	MR-2512	Ambe Hi-tech	OPC	Chisang Khola	7-Jan-20	14-Jan-20	4-Feb-20	8.77	7.5	
17	N-7	MR-2513	Ambe Hi-tech	OPC	Chisang Khola	7-Jan-20	14-Jan-20	4-Feb-20	7.96	7.5	
18	R-12	MR-2514	Ambe Hi-tech	OPC	Chisang Khola	7-Jan-20	14-Jan-20	4-Feb-20	9.30	7.5	
19	T1L7B	MR-2515	Ambe Hi-tech	OPC	Chisang Khola	8-Jan-20	15-Jan-20	5-Feb-20	8.23	7.5	
20	R-46	MR-2516	Ambe Hi-tech	OPC	Chisang Khola	8-Jan-20	15-Jan-20	5-Feb-20	8.63	7.5	
21	T3L25A	MR-2517	Ambe Hi-tech	OPC	Chisang Khola	8-Jan-20	15-Jan-20	5-Feb-20	8.36	7.5	
22	T1L8B	MR-2518	Ambe Hi-tech	OPC	Chisang Khola	8-Jan-20	15-Jan-20	5-Feb-20	7.82	7.5	
23	N-31	MR-2519	Ambe Hi-tech	OPC	Chisang Khola	8-Jan-20	15-Jan-20	5-Feb-20	8.77	7.5	
24	T1L7A	MR-2520	Ambe Hi-tech	OPC	Chisang Khola	8-Jan-20	15-Jan-20	5-Feb-20	8.50	7.5	
25	R-5	MR-2521	Ambe Hi-tech	OPC	Chisang Khola	9-Jan-20	16-Jan-20	6-Feb-20	8.23	7.5	
26	R-16	MR-2522	Ambe Hi-tech	OPC	Chisang Khola	9-Jan-20	16-Jan-20	6-Feb-20	8.90	7.5	
27	N-31	MR-2523	Ambe Hi-tech	OPC	Chisang Khola	9-Jan-20	16-Jan-20	6-Feb-20	9.30	7.5	
28	N-3	MR-2524	Ambe Hi-tech	OPC	Chisang Khola	9-Jan-20	16-Jan-20	6-Feb-20	8.09	7.5	
29	T1L7A	MR-2525	Ambe Hi-tech	OPC	Chisang Khola	9-Jan-20	16-Jan-20	6-Feb-20	8.77	7.5	

Contractor

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

Consultant

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

Checked By
Engineer
Dhirendra Yadav

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

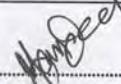
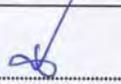
Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Mortar Test Report

Page no. 1 of 2

							Month		February		
							Year		2020		
							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	
30	T1L7B	MR-2526	Ambe Hi-tech	OPC	Chisang Khola	10-Jan-20	17-Jan-20	7-Feb-20	8.36	7.5	
31	R-5	MR-2527	Ambe Hi-tech	OPC	Chisang Khola	10-Jan-20	17-Jan-20	7-Feb-20	9.30	7.5	
32	R-16	MR-2528	Ambe Hi-tech	OPC	Chisang Khola	10-Jan-20	17-Jan-20	7-Feb-20	9.04	7.5	
33	N-3	MR-2529	Ambe Hi-tech	OPC	Chisang Khola	10-Jan-20	17-Jan-20	7-Feb-20	8.36	7.5	
34	T1L7A	MR-2530	Ambe Hi-tech	OPC	Chisang Khola	10-Jan-20	17-Jan-20	7-Feb-20	8.90	7.5	
35	R-26	MR-2531	Ambe Hi-tech	OPC	Chisang Khola	11-Jan-20	18-Jan-20	8-Feb-20	8.23	7.5	
36	N-8	MR-2532	Ambe Hi-tech	OPC	Chisang Khola	11-Jan-20	18-Jan-20	8-Feb-20	8.90	7.5	
37	T1L7B	MR-2533	Ambe Hi-tech	OPC	Chisang Khola	11-Jan-20	18-Jan-20	8-Feb-20	9.30	7.5	
38	N-7	MR-2534	Ambe Hi-tech	OPC	Chisang Khola	11-Jan-20	18-Jan-20	8-Feb-20	9.44	7.5	
39	R-5	MR-2535	Ambe Hi-tech	OPC	Chisang Khola	11-Jan-20	18-Jan-20	8-Feb-20	8.50	7.5	
40	R-46	MR-2536	Ambe Hi-tech	OPC	Chisang Khola	12-Jan-20	19-Jan-20	9-Feb-20	9.44	7.5	
41	T3L10A	MR-2537	Ambe Hi-tech	OPC	Chisang Khola	12-Jan-20	19-Jan-20	9-Feb-20	8.36	7.5	
42	T3L25A	MR-2538	Ambe Hi-tech	OPC	Chisang Khola	12-Jan-20	19-Jan-20	9-Feb-20	8.50	7.5	
43	R-16	MR-2539	Ambe Hi-tech	OPC	Chisang Khola	12-Jan-20	19-Jan-20	9-Feb-20	8.90	7.5	
44	N-31	MR-2540	Ambe Hi-tech	OPC	Chisang Khola	12-Jan-20	19-Jan-20	9-Feb-20	8.63	7.5	
45	T1L8B	MR-2541	Ambe Hi-tech	OPC	Chisang Khola	12-Jan-20	19-Jan-20	9-Feb-20	8.90	7.5	
46	R-12	MR-2542	Ambe Hi-tech	OPC	Chisang Khola	13-Jan-20	20-Jan-20	10-Feb-20	9.30	7.5	
47	N-3	MR-2543	Ambe Hi-tech	OPC	Chisang Khola	13-Jan-20	20-Jan-20	10-Feb-20	8.23	7.5	
48	T2L24	MR-2544	Ambe Hi-tech	OPC	Chisang Khola	13-Jan-20	20-Jan-20	10-Feb-20	9.04	7.5	
49	N-32	MR-2545	Ambe Hi-tech	OPC	Chisang Khola	13-Jan-20	20-Jan-20	10-Feb-20	8.90	7.5	
50	T1L7A	MR-2546	Ambe Hi-tech	OPC	Chisang Khola	14-Jan-20	21-Jan-20	11-Feb-20	8.23	7.5	
51	R-26	MR-2547	Ambe Hi-tech	OPC	Chisang Khola	14-Jan-20	21-Jan-20	11-Feb-20	9.30	7.5	
52	N-8	MR-2548	Ambe Hi-tech	OPC	Chisang Khola	14-Jan-20	21-Jan-20	11-Feb-20	9.17	7.5	
53	T1L7B	MR-2549	Ambe Hi-tech	OPC	Chisang Khola	15-Jan-20	22-Jan-20	12-Feb-20	8.36	7.5	
54	N-7	MR-2550	Ambe Hi-tech	OPC	Chisang Khola	15-Jan-20	22-Jan-20	12-Feb-20	8.63	7.5	
55	R-46	MR-2551	Ambe Hi-tech	OPC	Chisang Khola	15-Jan-20	22-Jan-20	12-Feb-20	9.04	7.5	
56	T1L10A	MR-2552	Ambe Hi-tech	OPC	Chisang Khola	16-Jan-20	23-Jan-20	13-Feb-20	9.44	7.5	
57	R-5	MR-2553	Ambe Hi-tech	OPC	Chisang Khola	16-Jan-20	23-Jan-20	13-Feb-20	9.04	7.5	
58	R-16	MR-2554	Ambe Hi-tech	OPC	Chisang Khola	16-Jan-20	23-Jan-20	13-Feb-20	8.77	7.5	
59	N-3	MR-2555	Ambe Hi-tech	OPC	Chisang Khola	16-Jan-20	23-Jan-20	13-Feb-20	8.63	7.5	
60	R-12	MR-2556	Ambe Hi-tech	OPC	Chisang Khola	18-Jan-20	25-Jan-20	15-Feb-20	8.50	7.5	
61	R-12	MR-2557	Ambe Hi-tech	OPC	Chisang Khola	18-Jan-20	25-Jan-20	15-Feb-20	9.04	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 Dhirendra Yadav	 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

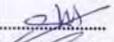
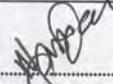
Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Mortar Test Report

Page no. 1 of 3

							Month		February				
							Year		2020				
							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			
62	T2L24	MR-2558	Ambe Hi-tech	OPC	Chisang Khola	18-Jan-20	25-Jan-20	15-Feb-20		9.17	7.5		
63	N-32	MR-2559	Ambe Hi-tech	OPC	Chisang Khola	18-Jan-20	25-Jan-20	15-Feb-20		9.30	7.5		
64	T3L25A	MR-2560	Ambe Hi-tech	OPC	Chisang Khola	19-Jan-20	26-Jan-20	16-Feb-20		9.44	7.5		
65	R-2	MR-2561	Ambe Hi-tech	OPC	Chisang Khola	19-Jan-20	26-Jan-20	16-Feb-20		8.50	7.5		
66	T3L Trunk line	MR-2562	Ambe Hi-tech	OPC	Chisang Khola	19-Jan-20	26-Jan-20	16-Feb-20		8.90	7.5		
67	R-2	MR-2563	Ambe Hi-tech	OPC	Chisang Khola	20-Jan-20	27-Jan-20	17-Feb-20		9.17	7.5		
68	R-12	MR-2564	Ambe Hi-tech	OPC	Chisang Khola	20-Jan-20	27-Jan-20	17-Feb-20		8.23	7.5		
69	T3L Trunk line	MR-2565	Ambe Hi-tech	OPC	Chisang Khola	20-Jan-20	27-Jan-20	17-Feb-20		8.77	7.5		
70	T1L7A	MR-2566	Ambe Hi-tech	OPC	Chisang Khola	21-Jan-20	28-Jan-20	18-Feb-20		9.57	7.5		
71	T3L25A	MR-2567	Ambe Hi-tech	OPC	Chisang Khola	25-Jan-20	1-Feb-20	22-Feb-20	6.20	8.77	7.5		
72	T1L8B	MR-2568	Ambe Hi-tech	OPC	Chisang Khola	25-Jan-20	1-Feb-20	22-Feb-20	6.61	9.30	7.5		
73	R-12	MR-2569	Ambe Hi-tech	OPC	Chisang Khola	25-Jan-20	1-Feb-20	22-Feb-20	6.07	8.23	7.5		
74	T2L24	MR-2570	Ambe Hi-tech	OPC	Chisang Khola	25-Jan-20	1-Feb-20	22-Feb-20	6.74	9.04	7.5		
75	T1L7B	MR-2571	Ambe Hi-tech	OPC	Chisang Khola	25-Jan-20	1-Feb-20	22-Feb-20	6.74	8.77	7.5		
76	N-32	MR-2572	Ambe Hi-tech	OPC	Chisang Khola	25-Jan-20	1-Feb-20	22-Feb-20	6.20	8.36	7.5		
77	T1L7C	MR-2573	Ambe Hi-tech	OPC	Chisang Khola	26-Jan-20	2-Feb-20	23-Feb-20	6.74	8.90	7.5		
78	T1L8C	MR-2574	Ambe Hi-tech	OPC	Chisang Khola	26-Jan-20	2-Feb-20	23-Feb-20	6.88	9.17	7.5		
79	R-17	MR-2575	Ambe Hi-tech	OPC	Chisang Khola	28-Jan-20	4-Feb-20	25-Feb-20	6.88	9.04	7.5		
80	R-5	MR-2576	Ambe Hi-tech	OPC	Chisang Khola	28-Jan-20	4-Feb-20	25-Feb-20	6.20	8.77	7.5		
81	R-46	MR-2577	Ambe Hi-tech	OPC	Chisang Khola	29-Jan-20	5-Feb-20	26-Feb-20	5.93	8.50	7.5		
82	T3L10A	MR-2578	Ambe Hi-tech	OPC	Chisang Khola	29-Jan-20	5-Feb-20	26-Feb-20	6.61	8.23	7.5		
83	T3L25A	MR-2579	Ambe Hi-tech	OPC	Chisang Khola	31-Jan-20	7-Feb-20	28-Feb-20	6.34	9.57	7.5		
84	N-3	MR-2580	Ambe Hi-tech	OPC	Chisang Khola	1-Feb-20	8-Feb-20	29-Feb-20	6.80	9.44	7.5		
85	N-34	MR-2581	Ambe Hi-tech	OPC	Chisang Khola	1-Feb-20	8-Feb-20	29-Feb-20	6.20	8.90	7.5		
86	R-26	MR-2582	Ambe Hi-tech	OPC	Chisang Khola	2-Feb-20	9-Feb-20	1-Mar-20	7.01	7.5	7.5		
87	S-13C	MR-2583	Ambe Hi-tech	OPC	Chisang Khola	3-Feb-20	10-Feb-20	2-Mar-20	6.20	7.5	7.5		
88	T2L24	MR-2584	Ambe Hi-tech	OPC	Chisang Khola	3-Feb-20	10-Feb-20	2-Mar-20	5.93	7.5	7.5		
89	R-3	MR-2585	Ambe Hi-tech	OPC	Chisang Khola	4-Feb-20	11-Feb-20	3-Mar-20	6.61	7.5	7.5		
90	N-4	MR-2586	Ambe Hi-tech	OPC	Chisang Khola	4-Feb-20	11-Feb-20	3-Mar-20	7.28	7.5	7.5		
91	T2L19X	MR-2587	Ambe Hi-tech	OPC	Chisang Khola	5-Feb-20	12-Feb-20	4-Mar-20	7.01	7.5	7.5		
92	T3L25A	MR-2588	Ambe Hi-tech	OPC	Chisang Khola	6-Feb-20	13-Feb-20	5-Mar-20	6.47	7.5	7.5		
93	T1L8B	MR-2589	Ambe Hi-tech	OPC	Chisang Khola	6-Feb-20	13-Feb-20	5-Mar-20	6.74	7.5	7.5		

 Contractor ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD		 Consultant BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL	
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REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Mortar Test Report

Page no. 1 of 4

Month February

Year 2020

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	
							94	R-12	MR-2590	Ambe Hi-tech	
95	T2L24	MR-2591	Ambe Hi-tech	OPC	Chisang Khola	7-Feb-20	14-Feb-20	6-Mar-20	7.01		7.5
96	T1L7B	MR-2592	Ambe Hi-tech	OPC	Chisang Khola	8-Feb-20	15-Feb-20	7-Mar-20	5.93		7.5
97	N-32	MR-2593	Ambe Hi-tech	OPC	Chisang Khola	8-Feb-20	15-Feb-20	7-Mar-20	6.20		7.5
98	T1L7C	MR-2594	Ambe Hi-tech	OPC	Chisang Khola	9-Feb-20	16-Feb-20	8-Mar-20	7.15		7.5
99	T1L8C	MR-2595	Ambe Hi-tech	OPC	Chisang Khola	9-Feb-20	16-Feb-20	8-Mar-20	6.07		7.5
100	R-12	MR-2596	Ambe Hi-tech	OPC	Chisang Khola	10-Feb-20	17-Feb-20	9-Mar-20	6.74		7.5
101	R-5	MR-2597	Ambe Hi-tech	OPC	Chisang Khola	10-Feb-20	17-Feb-20	9-Mar-20	6.47		7.5
102	R-46	MR-2598	Ambe Hi-tech	OPC	Chisang Khola	11-Feb-20	18-Feb-20	10-Mar-20	6.74		7.5
103	T3L10A	MR-2599	Ambe Hi-tech	OPC	Chisang Khola	11-Feb-20	18-Feb-20	10-Mar-20	6.47		7.5
104	T3L25A	MR-2600	Ambe Hi-tech	OPC	Chisang Khola	12-Feb-20	19-Feb-20	11-Mar-20	7.15		7.5
105	R-17	MR-2601	Ambe Hi-tech	OPC	Chisang Khola	13-Feb-20	20-Feb-20	12-Mar-20	6.88		7.5
106	N-3	MR-2602	Ambe Hi-tech	OPC	Chisang Khola	13-Feb-20	20-Feb-20	12-Mar-20	6.88		7.5
107	N-34	MR-2603	Ambe Hi-tech	OPC	Chisang Khola	13-Feb-20	20-Feb-20	12-Mar-20	6.07		7.5
108	R-26	MR-2604	Ambe Hi-tech	OPC	Chisang Khola	13-Feb-20	20-Feb-20	12-Mar-20	6.74		7.5
109	S-13C	MR-2605	Ambe Hi-tech	OPC	Chisang Khola	14-Feb-20	21-Feb-20	13-Mar-20	7.01		7.5
110	T2L24	MR-2606	Ambe Hi-tech	OPC	Chisang Khola	14-Feb-20	21-Feb-20	13-Mar-20	6.34		7.5
111	R-3	MR-2607	Ambe Hi-tech	OPC	Chisang Khola	14-Feb-20	21-Feb-20	13-Mar-20	7.42		7.5
112	N-4	MR-2608	Ambe Hi-tech	OPC	Chisang Khola	14-Feb-20	21-Feb-20	13-Mar-20	6.88		7.5
113	T2L19K	MR-2609	Ambe Hi-tech	OPC	Chisang Khola	14-Feb-20	21-Feb-20	13-Mar-20	5.80		7.5
114	R-17	MR-2610	Ambe Hi-tech	OPC	Chisang Khola	14-Feb-20	21-Feb-20	13-Mar-20	6.20		7.5
115	R-12	MR-2611	Ambe Hi-tech	OPC	Chisang Khola	14-Feb-20	21-Feb-20	13-Mar-20	6.20		7.5
116	R-26	MR-2612	Ambe Hi-tech	OPC	Chisang Khola	15-Feb-20	22-Feb-20	14-Mar-20	7.15		7.5
117	N-34	MR-2613	Ambe Hi-tech	OPC	Chisang Khola	15-Feb-20	22-Feb-20	14-Mar-20	6.47		7.5
118	S-13C	MR-2614	Ambe Hi-tech	OPC	Chisang Khola	15-Feb-20	22-Feb-20	14-Mar-20	6.61		7.5
119	T1L8B	MR-2615	Ambe Hi-tech	OPC	Chisang Khola	15-Feb-20	22-Feb-20	14-Mar-20	7.01		7.5
120	T2L19X	MR-2616	Ambe Hi-tech	OPC	Chisang Khola	15-Feb-20	22-Feb-20	14-Mar-20	6.88		7.5
121	N-3	MR-2617	Ambe Hi-tech	OPC	Chisang Khola	15-Feb-20	22-Feb-20	14-Mar-20	6.07		7.5
122	R-26	MR-2618	Ambe Hi-tech	OPC	Chisang Khola	15-Feb-20	22-Feb-20	14-Mar-20	6.88		7.5
123	T3L10A	MR-2619	Ambe Hi-tech	OPC	Chisang Khola	15-Feb-20	22-Feb-20	14-Mar-20	7.15		7.5
124	T1L8C	MR-2620	Ambe Hi-tech	OPC	Chisang Khola	15-Feb-20	22-Feb-20	14-Mar-20	7.15		7.5
125	T1L8C	MR-2621	Ambe Hi-tech	OPC	Chisang Khola	16-Feb-20	23-Feb-20	15-Mar-20	6.07		7.5

Contractor

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

Consultant

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

Checked By
Engineer
Dhirendra Yadav

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

Page no. 1 of 5

Month February

Year 2020

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	
							126	T3L25A	MR-2622	Ambe Hi-tech	
127	T1L8B	MR-2623	Ambe Hi-tech	OPC	Chisang Khola	16-Feb-20	23-Feb-20	15-Mar-20	6.88		7.5
128	R-12	MR-2624	Ambe Hi-tech	OPC	Chisang Khola	16-Feb-20	23-Feb-20	15-Mar-20	5.80		7.5
129	T2L24	MR-2625	Ambe Hi-tech	OPC	Chisang Khola	16-Feb-20	23-Feb-20	15-Mar-20	6.61		7.5
130	T1L7B	MR-2626	Ambe Hi-tech	OPC	Chisang Khola	16-Feb-20	23-Feb-20	15-Mar-20	6.74		7.5
131	T1L7C	MR-2627	Ambe Hi-tech	OPC	Chisang Khola	16-Feb-20	23-Feb-20	15-Mar-20	6.20		7.5
132	T1L8C	MR-2628	Ambe Hi-tech	OPC	Chisang Khola	16-Feb-20	23-Feb-20	15-Mar-20	6.74		7.5
133	R-12	MR-2629	Ambe Hi-tech	OPC	Chisang Khola	17-Feb-20	24-Feb-20	16-Mar-20	6.88		7.5
134	R-5	MR-2630	Ambe Hi-tech	OPC	Chisang Khola	17-Feb-20	24-Feb-20	16-Mar-20	6.61		7.5
135	R-46	MR-2631	Ambe Hi-tech	OPC	Chisang Khola	17-Feb-20	24-Feb-20	16-Mar-20	7.01		7.5
136	T3L10A	MR-2632	Ambe Hi-tech	OPC	Chisang Khola	17-Feb-20	24-Feb-20	16-Mar-20	6.61		7.5
137	T3L25A	MR-2633	Ambe Hi-tech	OPC	Chisang Khola	17-Feb-20	24-Feb-20	16-Mar-20	6.47		7.5
138	N-3	MR-2634	Ambe Hi-tech	OPC	Chisang Khola	17-Feb-20	24-Feb-20	16-Mar-20	7.28		7.5
139	N-34	MR-2635	Ambe Hi-tech	OPC	Chisang Khola	17-Feb-20	24-Feb-20	16-Mar-20	7.15		7.5
140	S-13C	MR-2636	Ambe Hi-tech	OPC	Chisang Khola	17-Feb-20	24-Feb-20	16-Mar-20	6.47		7.5
141	T2L24	MR-2637	Ambe Hi-tech	OPC	Chisang Khola	18-Feb-20	25-Feb-20	17-Mar-20	5.80		7.5
142	R-3	MR-2638	Ambe Hi-tech	OPC	Chisang Khola	18-Feb-20	25-Feb-20	17-Mar-20	5.80		7.5
143	N-4	MR-2639	Ambe Hi-tech	OPC	Chisang Khola	18-Feb-20	25-Feb-20	17-Mar-20	6.61		7.5
144	T2L19X	MR-2640	Ambe Hi-tech	OPC	Chisang Khola	18-Feb-20	25-Feb-20	17-Mar-20	6.47		7.5
145	R-17	MR-2641	Ambe Hi-tech	OPC	Chisang Khola	18-Feb-20	25-Feb-20	17-Mar-20	6.20		7.5
146	R-5	MR-2642	Ambe Hi-tech	OPC	Chisang Khola	18-Feb-20	25-Feb-20	17-Mar-20	6.88		7.5
147	T1L7C	MR-2643	Ambe Hi-tech	OPC	Chisang Khola	19-Feb-20	26-Feb-20	18-Mar-20	7.15		7.5
148	T3L25A	MR-2644	Ambe Hi-tech	OPC	Chisang Khola	19-Feb-20	26-Feb-20	18-Mar-20	6.61		7.5
149	N-3	MR-2645	Ambe Hi-tech	OPC	Chisang Khola	19-Feb-20	26-Feb-20	18-Mar-20	6.74		7.5
150	R-46	MR-2646	Ambe Hi-tech	OPC	Chisang Khola	19-Feb-20	26-Feb-20	18-Mar-20	6.47		7.5
151	T1L7C	MR-2647	Ambe Hi-tech	OPC	Chisang Khola	20-Feb-20	27-Feb-20	19-Mar-20	5.93		7.5
152	N-4	MR-2648	Ambe Hi-tech	OPC	Chisang Khola	20-Feb-20	27-Feb-20	19-Mar-20	7.01		7.5
153	T3L10A	MR-2649	Ambe Hi-tech	OPC	Chisang Khola	20-Feb-20	27-Feb-20	19-Mar-20	6.07		7.5
154	S-13C	MR-2650	Ambe Hi-tech	OPC	Chisang Khola	20-Feb-20	27-Feb-20	19-Mar-20	6.47		7.5
155	T2L24	MR-2651	Ambe Hi-tech	OPC	Chisang Khola	20-Feb-20	27-Feb-20	19-Mar-20	7.15		7.5
156	T2L19X	MR-2652	Ambe Hi-tech	OPC	Chisang Khola	20-Feb-20	27-Feb-20	19-Mar-20	6.20		7.5
157	R-17	MR-2653	Ambe Hi-tech	OPC	Chisang Khola	20-Feb-20	27-Feb-20	19-Mar-20	6.20		7.5

Contractor

ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD

Consultant

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

Checked By
Engineer
Dhirendra Yadav

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 Mortar Test Report

Page no. 1 of 6

Month February

Year 2020

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	
							158	T3L25A	MR-2654	Ambe Hi-tech	
159	T1L7C	MR-2655	Ambe Hi-tech	OPC	Chisang Khola	21-Feb-20	28-Feb-20	20-Mar-20	6.74		7.5
160	T1L8B	MR-2656	Ambe Hi-tech	OPC	Chisang Khola	21-Feb-20	28-Feb-20	20-Mar-20	7.01		7.5
161	R-12	MR-2657	Ambe Hi-tech	OPC	Chisang Khola	21-Feb-20	28-Feb-20	20-Mar-20	6.61		7.5
162	T2L24	MR-2658	Ambe Hi-tech	OPC	Chisang Khola	21-Feb-20	28-Feb-20	20-Mar-20	6.07		7.5
163	N-32	MR-2659	Ambe Hi-tech	OPC	Chisang Khola	21-Feb-20	28-Feb-20	20-Mar-20	6.61		7.5
164	T1L7B	MR-2660	Ambe Hi-tech	OPC	Chisang Khola	21-Feb-20	28-Feb-20	20-Mar-20	6.74		7.5
165	R-12	MR-2661	Ambe Hi-tech	OPC	Chisang Khola	21-Feb-20	28-Feb-20	20-Mar-20	6.34		7.5
166	R-5	MR-2662	Ambe Hi-tech	OPC	Chisang Khola	21-Feb-20	28-Feb-20	20-Mar-20	6.88		7.5
167	R-46	MR-2663	Ambe Hi-tech	OPC	Chisang Khola	21-Feb-20	28-Feb-20	20-Mar-20	6.20		7.5
168	T3L10A	MR-2664	Ambe Hi-tech	OPC	Chisang Khola	22-Feb-20	29-Feb-20	21-Mar-20	6.74		7.5
169	T3L25A	MR-2665	Ambe Hi-tech	OPC	Chisang Khola	22-Feb-20	29-Feb-20	21-Mar-20	6.88		7.5
170	N-3	MR-2666	Ambe Hi-tech	OPC	Chisang Khola	22-Feb-20	29-Feb-20	21-Mar-20	6.20		7.5
171	N-34	MR-2667	Ambe Hi-tech	OPC	Chisang Khola	22-Feb-20	29-Feb-20	21-Mar-20	6.88		7.5
172	R-26	MR-2668	Ambe Hi-tech	OPC	Chisang Khola	22-Feb-20	29-Feb-20	21-Mar-20	7.01		7.5
173	S-13C	MR-2669	Ambe Hi-tech	OPC	Chisang Khola	22-Feb-20	29-Feb-20	21-Mar-20	6.88		7.5
174	T2L24	MR-2670	Ambe Hi-tech	OPC	Chisang Khola	22-Feb-20	29-Feb-20	21-Mar-20	6.47		7.5
175	R-3	MR-2671	Ambe Hi-tech	OPC	Chisang Khola	22-Feb-20	29-Feb-20	21-Mar-20	6.07		7.5
176	N-4	MR-2672	Ambe Hi-tech	OPC	Chisang Khola	22-Feb-20	29-Feb-20	21-Mar-20	6.88		7.5
177	T2L19X	MR-2673	Ambe Hi-tech	OPC	Chisang Khola	22-Feb-20	29-Feb-20	21-Mar-20	6.74		7.5
178	R-17	MR-2674	Ambe Hi-tech	OPC	Chisang Khola	22-Feb-20	29-Feb-20	21-Mar-20	6.34		7.5

Contractor

ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD

Consultant

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

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Team Leader
Giresch Chand



ANNEX-4: SOCIAL & ENVIRONMENT SAFEGUARD

Monitoring Formats Attached – February 2020



Regional Urban Development Project(RUDP)
Social Safeguard Monitoring
 Inventory of Social Facilities
 Labour Data Summary

LABOUR CLASS	LABOUR		COMPOSITION				ETHNIC COMPOSITION			
	SKILLED	UNSKILLED	MALE	FEMALE	JANIATI	DALIT	MUSLIM	MADHESI	BRAHMIN/CHHETRI	
LOCAL	6	16	22	0	3	5	0	14	0	
NON LOCAL	95	308	359	44	117	89	23	174	0	
INDIAN	6	20	26	0	0	0	15	11	0	
TOTAL	107	344	407	44	120	94	38	199	0	



Regional Urban Development Project(RUDP)
Social Safeguard Monitoring
Inventory of Social Facilities

1.General Information
Subproject:-RUDP/ICB/BRT/2
Contract Package: RUDP/ICB/BRT/2
Month/Year:-February2020

S.NO	LOCATION	TYPES OF WORK	TYPES OF WORKERS	LABOUR		COMPOSITION		ETHNIC COMPOSITION				BRAHMIN/CHHETRI	
				SKILLED	UNSKILLED	MALE	FEMALE	JATI	DAUIT	MUSLIM	MADHESI		
1	B2	Brooming	LOCAL										
			NON LOCAL	5	26	5	26	15	5			11	
			INDIAN										
			TOTAL	31									
2	R2	Asphalt	LOCAL										
			NON LOCAL	3	12	15							
			INDIAN										
			TOTAL	15									
3	B2	Road Prime	LOCAL										
			NON LOCAL	2	6	8						8	
			INDIAN										
			TOTAL	8									
4	T3L228	House Connection	LOCAL										
			NON LOCAL	3	7	10						10	
			INDIAN										
			TOTAL	10									
5	R3 Trunk Line	House Connection	LOCAL										
			NON LOCAL	2	10	12						5	
			INDIAN										
			TOTAL	12									
6	T3L13C	HOUSE CONNECTION	LOCAL										
			NON LOCAL	4	7	11						6	
			INDIAN									5	
			TOTAL	11									
7	B2	Weep Hole	LOCAL										
			NON LOCAL	2	5	7						4	
			INDIAN										
			TOTAL	7									
			LOCAL										
			NON LOCAL	3	12	15							



Regional Urban Development Project(RUDP)
Social Safeguard Monitoring
Inventory of Social Facilities

1.General information
Subproject:-RUDP/ICB/BRT/2
Contract Package: RUDP/ICB/BRT/2

S.NO	LOCATION	TYPES OF WORK	TYPES OF WORKERS	LABOUR		COMPOSITION		ETHNIC COMPOSITION							
				SKILLED	UNSKILLED	MALE	FEMALE	DALIT	MUSLIM	MADHESI	BRAHMIN/CHHETRI				
			INDIAN TOTAL	15											
9	R2	Back Filling	LOCAL NON LOCAL INDIAN TOTAL	5 18 23	5 18	5 18		13		10					
10	Koshi Yard	Production	LOCAL NON LOCAL INDIAN TOTAL	5 25 30	5 25	30	15	10		5					
11	R4	SUB-BASE	LOCAL NON LOCAL INDIAN TOTAL	3 5 8	3 5	8		3		5					
12	R4	RCC Drain	LOCAL NON LOCAL INDIAN TOTAL	4 12 16	4 12	16	6	4		6					
13	R4	Road Paint	LOCAL NON LOCAL INDIAN TOTAL	3 8 11	3 8	11				11					
14	Madhumara Yard	Production	LOCAL NON LOCAL INDIAN TOTAL	6 22 28	6 22	28	10	8		10					
		Tick Drain	LOCAL NON LOCAL INDIAN TOTAL	3 9 12	3 9	12	5	4		3					
				12											



Regional Urban Development Project(RUDP)
Social Safeguard Monitoring
Inventory of Social Facilities

1. General information
Subproject: -RUDP/ICB/BRT/2
in Group/International Engineering Co pvt. Beijing China.

Month/Year: -February 2020
Contract Package: RUDP/ICB/BRT/2

S.NO	LOCATION	TYPES OF WORK	TYPES OF WORKERS	LABOUR		COMPOSITION		ETHNIC COMPOSITION												
				SKILLED	UNSKILLED	MALE	FEMALE	DAUT	MUSLIM	MADHESI	BRAHMIN/CHHETRI									
16	T3L26E	Tick Drain	LOCAL																	
			NON LOCAL	2	12	14					5									
			INDIAN																	
			TOTAL	14																
17	R46	Crossing	LOCAL																	
			NON LOCAL	3	12	15					5									
			INDIAN																	
			TOTAL	15																
18	Rani	Base Final	LOCAL																	
			NON LOCAL	2	6	8						5								
			INDIAN																	
			TOTAL	8																
19	R6	DRAIN	LOCAL																	
			NON LOCAL	4	13	17							5							
			INDIAN																	
			TOTAL	17																
20	N3	DRAIN	LOCAL																	
			NON LOCAL	2	12	14							2							
			INDIAN																	
			TOTAL	14																
21	R17	Drain	LOCAL																	
			NON LOCAL	4	12	16														
			INDIAN																	
			TOTAL	16																
22	T3L31A	DRAIN	LOCAL																	
			NON LOCAL	3	12	15														
			INDIAN																	
			TOTAL	15																



Regional Urban Development Project (RUDP)
Social Safeguard Monitoring
Inventory of Social Facilities

Month/Year: -February 2020
Contract Package: RUDP/ICB/BRT/2

1.General information
Subproject: -RUDP/ICB/BRT/2
an Group/International Engineering Co pvt. Beijing China.

S.NO	LOCATION	TYPES OF WORK	TYPES OF WORKERS	LABOUR		COMPOSITION		ETHNIC COMPOSITION					
				SKILLED	UNSKILLED	MALE	FEMALE	DALIT	MUSLIM	MADHESI	BRAHMIN/CHHETRI		
23	R12	Base	NON LOCAL INDIAN TOTAL	3 5 8	5	8		3				5	
24	T2L192	MH Correction	LOCAL NON LOCAL INDIAN TOTAL	2 3 5	3	5		2				3	
25	T2L24	DRAIN	LOCAL NON LOCAL INDIAN TOTAL	3 9 12	9	12		2				5	
26	N3	Sub-Grade	LOCAL NON LOCAL INDIAN TOTAL	2 3 5	3	5		3				2	
27	R11	Drain Maintenance	LOCAL NON LOCAL INDIAN TOTAL	3 7 10	7	10		2				4	
28	T3L5	Drain Maintenance	LOCAL NON LOCAL INDIAN TOTAL	3 9 12	9	12		3				4	
29	T3L30	Gutter	LOCAL NON LOCAL INDIAN TOTAL	4 9 13	9	13		3				5	
			LOCAL NON LOCAL	4 10	10	14		4				3	7



Regional Urban Development Project (RUDP)
 Social Safeguard Monitoring
 Inventory of Social Facilities

1. General information
 Subproject: -RUDP/ICB/BRT/2
 in Group/International Engineering Co pvt. Beijing China.

Month/Year: -February 2020
 Contract Package: RUDP/ICB/BRT/2

S.NO	LOCATION	TYPES OF WORK	TYPES OF WORKERS		LABOUR		COMPOSITION		ETHNIC COMPOSITION									
			INDIAN	TOTAL	SKILLED	UNSKILLED	MALE	FEMALE	JANATI	DALIT	MUSLIM	MADHESI	BRAHMIN/CHHETRI					
31	Rani Prajatantra	Electrical Work	INDIAN															
			TOTAL	14														
			LOCAL															
32	R11	Drain Maintenance	NON LOCAL		5	12	17								10			
			INDIAN															
			TOTAL	17														
33	R6	Kerbstone Laying	LOCAL		2	7	9									5		
			NON LOCAL															
			INDIAN															
TOTAL	9																	
33	R6	Kerbstone Laying	LOCAL		3	7	10									5		
			NON LOCAL															
			INDIAN															
TOTAL	10																	



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

Subproject Road : -RUDP/ICB/BRT/2

Month/Year: February2020

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: February 2020

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	DDC, Kanchanbari, 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	



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	



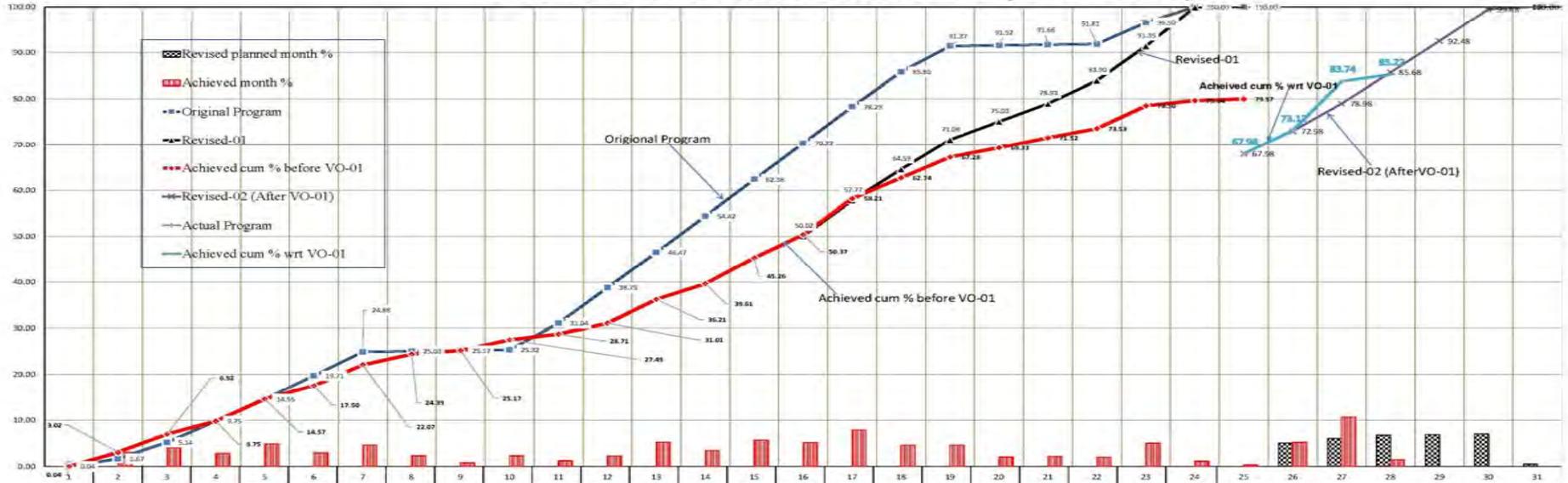
ANNEX-5: S-Curve

ATTACHED – February 2020



Revised -02 (After VO-01)

BIRATNAGAR METROPOLITAN CITY
REGIONAL URBAN DEVELOPMENT PROJECT (RUDP)
S-CURVE REVISED WORK PROGRAM-02 (AFTER VO-01)



Year/Month	2017												2018												2019												2020				
	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										
Original Planned Month %	0.04	1.63	3.48	5.60	8.80	13.17	17.72	23.45	30.36	38.44	46.67	55.04	63.64	72.37	81.24	90.25	99.40	100.00																							
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																	
Achieved month %	0.04	2.98	3.90	2.83	4.82	2.99	4.57	2.32	6.78	2.32	1.22	2.30	5.20	3.40	5.65	5.11	7.84	4.53	4.54	2.05	2.10	2.01	4.97	1.14	0.33	5.14	10.62	1.48													
Achieved Progress Cum %	0.04	3.02	6.92	9.75	14.57	17.50	22.07	24.29	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	79.64	79.97	73.12	83.74	85.22													
Revised Planned Month %																																									
Revised Planned Cum %																																									
Revised Planned Month % after VO-01																																									
Revised Planned Cum After VO-01 %																																									
Revised planned month Amount in 100000																																									
Achieved Month Amount in 100000																																									
Revised planned Cum Amount in 100000																																									
Achieved Cum Amount in 100000																																									



Annex-6: Master Plan of RUDP Project



