

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



January 2020

Biratnagar Metropolitan City (BMC), Nepal

Table of Contents

EXECUTIVE SUMMARY..... I

1. PROJECT DESCRIPTION 5

1.1. INTRODUCTION/BACKGROUND 5

2. CONTRACT DATA: - RUDP/ICB/BRT/2 6

3. SUMMARY OF PROGRESS STATUS OF ALL MAJOR COMPONENTS..... 7

3.1. SUB PROJECT COMPONENTS 9

3.1.1. SEWER LINES 9

3.1.2. STORM WATER DRAIN 13

3.1.3. ROADS AND LANES..... 13

3.1.4. ROAD SIDE DRAIN..... 30

3.2. ENVIRONMENTAL ASPECT 38

3.2.1. BORROW/ QUARRY SITES 38

3.2.2. DISPOSAL OF SPOIL AND CONSTRUCTION WASTE 38

3.2.3. PROVISION AND MAINTENANCE OF TOILETS 40

3.2.4. CRUSHING PLANTS..... 40

3.2.5. ASPHALT PLANTS AND BATCHING PLANTS..... 40

3.2.6. OCCUPATIONAL HEALTH AND SAFETY MEASURES 40

3.3. SOCIAL ASPECT 41

3.4. SAFEGUARD/ GESI COMPONENT 41

3.4.1. COMMUNITY AWARENESS: 41

3.4.2. GRIEVANCE REDRESSES MECHANISM: 41

3.4.3. GENDER EQUITY AND SOCIAL INCLUSION (GESI):..... 41

3.4.4. STATUS OF SOCIAL AND ENVIRONMENTAL SAFEGUARD MEASURES..... 42

3.4.5. STATUS OF RELOCATION OF SERVICES 42

3.5. FINANCIAL PLAN 44

3.5.1. DISBURSEMENT RECORDS IN CONSTRUCTION 44

4. OBJECTIVES AND SCOPE OF WORKS 46

4.1. OBJECTIVES..... 46

4.2. SCOPE OF WORKS 46

4.3. ORGANIZATION AND STAFFING..... 47

4.4. CONSULTANT’S ACTIVITIES IN CONSTRUCTION PHASE 49

5. PROGRESS OF SUB – PROJECT COMPONENTS 51

5.1. CONSTRUCTION MATERIALS..... 51

5.2. PROGRESS ACHIEVED TILL DATE 51

5.3. KEYEVENTS..... 52

6. DETAILS OF PRE CAST ACTIVITIES. 53

7. CONTRACTOR’S MANPOWER 56

8. CONTRACTOR’S EQUIPMENT 57

9. WORK PLAN FOR THE NEXT MONTH	58
ANNEX-1: PHOTOGRAPHS OF JANUARY, 2020	59
ANNEX-2: MINUTES OF MEETING JANUARY, 2020	63
ANNEX-3: LABORATORY TEST RESULTS OF JANUARY, 2020	64
ANNEX-4: SOCIAL& ENVIRONMENT SAFEGUARD	129
ANNEX-5: S-CURVE	138
ANNEX-6: MASTER PLAN OF RUDP PROJECT	140

EXECUTIVE SUMMARY

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

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

1. PROJECT DESCRIPTION

1.1. INTRODUCTION/BACKGROUND

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

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

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



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

General Features	
Name of Project	Regional Urban Development Project(RUDP)
Executing Agency	Government of Nepal,
	Ministry of Urban Development
	Department of Urban Development and Building Construction (DUDBC)
Implementing Agency	Biratnagar Metropolitan City, Biratnagar
Funded By	Asian Development Bank & Government of Nepal
Package	Construction and Completion of Sewerage, Drainage, Road, Footpath and Road furniture works
Contract No.	RUDP/ICB/BRT/2
Location	Biratnagar Metropolitan City, Biratnagar
Consultant	Building Design Authority (P) LTD in Joint Venture With B.N. consultancy Pvt and PLUS Engineers and Architects (P) Ltd Kathmandu.
Date of Sign of Design and Supervision Consulting Service	28th August 2017
Date of Commencement of Design and Supervision Consulting Service	6th September 2017
Date of Completion	5th September 2020
Contractor	ZHONGHENG Construction Group International Engineering Co Ltd. Beijing, China.
Date of Agreement Made	10 th October 2017
Date of Commencement	2 nd November 2017
Date of Completion (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
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	after VO-1



General Features	
Road Rehabilitation (Asphalt)	71.69%
Sewer Line	99.46%
Storm Drain	100.00%
Road Side Drain	99.69%
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: 78.98%, Actual: 83.74%; Lead (+) or Lag (-) by (-) 4.76% Lead.
Financial Progress up to date (<i>on the basis of IPC forwarded for disbursement</i>)	In Percentage: 70.83%, In Figure: NRs. 1,955,384,063.81 (including VAT and PS) up to IPC –14 wrt to VO-1.
	In Words: NRs. One Billion Nine Hundred Fifty Five Millions Three Hundred Eighty Four Thousand Sixty Three and Eighty One Paise 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	633.00	377.00	62.67%	
d	House Connection	No.	3,784.00	1,705.00	2,079.00	45.06%	
2	Storm Water Drain						
a	RCC Drain	m	585.00	585.00	-	100.00%	
b	Piles	No.	138.00	138.00	-	100.00%	



S. No.	Description	Unit	Quantity as per VO-1	Progress up to date	Remaining	Progress Status expressed in (%) wrt VO-1	Remarks
3	Road						
a	Sub grade	m	66,718.00	56,067.93	10,650.07	84.04%	
b	Sub base	m	66,718.00	55,457.93	11,260.07	83.12%	
c	Base	m	66,718.00	51,171.98	15,546.02	76.70%	
d	Prime	m	66,718.00	47,826.95	18,891.05	71.69%	
e	Asphalt	m	66,718.00	47,826.95	18,891.05	71.69%	
4	Road Side Drain	m	35,424.00	35,316.82	107.18	99.69%	



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	627.00	6.00	633.00	62.67
2	House connection	3,784.00	1,576.00	129.00	1,705.00	45.06



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.

SN	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 55.457 Km. has been attempted for Sub Base. About 47.826km. 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	



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	
13	B3	Keshaliya Marg	1,627.75		1,627.75	1,627.75	1,627.75	1,627.75			
14	S13		1,687.30		1,687.30	1,687.30	1,687.30	1,687.30		1,812.60	
15	R12		880.00		880.00	880.00	880.00	740.00			
16	R12	Kanchha Dai Marg	900.00		900.00	900.00	900.00	289.50			
17	Rani site	Rani	3,295.60		3,295.60	3,295.60	3,295.60	3,295.60			
18	R16	Satya Marg	604.00		604.00	604.00	604.00	554.90			
19	R26	Pasang Marg	598.00		598.00	598.00	598.00	598.00			
20	R28	Pustakalaya Marg	635.00		635.00	635.00	621.20	539.20			
21	R27	Peepal Marg	601.60		601.60	601.60	601.60	601.60		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			



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	
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			
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			



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	
39	R2	Main Road	2,800.00	320.00	3,120.00	2,800.00	2,604.70	2,604.70		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					
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			
44	R90	Shakti Marg	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			
46	R76	Mitra Marg	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			



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	
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	2,295.30		2,080.30	
54	R3 - under STIUEIP	Tinpaini to Puspallal chowk	-		-	-				4,000.00	
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	



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	
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	
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			



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	
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	315.00	315.00			
80	T3L21		400.00		400.00	400.00	400.00	400.00		774.00	
	T3L21B			60.00	60.00	60.00	60.00	60.00			
81	N5	R16 to R18	71.00		71.00	71.00	71.00	71.00		122.00	
82	T3L39		400.00		400.00	400.00	325.80	245.80		491.00	
83	T3L39A		89.00		89.00	89.00	89.00	89.00		179.40	
84	T3L39B		60.00		60.00	60.00	60.00	60.00		117.60	
85	T3L39C		100.00		100.00	100.00					
86	R68 - T2L24G		220.00		220.00	220.00	220.00	218.00			
87	N10		194.00		194.00	194.00	194.00	194.00			
88	T3L24C		170.00		170.00	170.00					
89	T3L9		278.00		278.00	278.00					
90	R6		1,228.20		1,228.20	1,228.20	1,228.20	1,228.20			



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	
91	N24		116.00		116.00	116.00	116.00	116.00			
92	R31		188.70		188.70	188.70	188.70	188.70			
93	Bindabasini Marga		352.28		352.28	352.28	352.28	352.80			
94	Bhattimode to Hartalihaat		166.50		166.50	166.50	166.50	166.50			
95	R73		217.00		217.00	217.00	217.00	217.00			
96	R6 (R41-R44)	Bata Galli	269.00		269.00	269.00	269.00	269.00			
97	R6		1,322.00		1,322.00	1,322.00	1,322.00	1,322.00			
98	R6	Pratibha chowk to N2	510.80		510.80	510.80	510.80	510.80			
99	R9 (R41-R7)		194.80		194.80	194.80	194.80	194.80			
100	R44	Thakurbari Road	482.50		482.50	482.50	482.50	357.50			
101	R102	Main	140.00		140.00	140.00	140.00	140.00			
102	R102	Branch	71.30		71.30	71.30	71.30	71.30			



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	
103	R103		170.40		170.40	170.40	170.40	170.40			
104	R32		188.00		188.00	188.00	188.00	188.00			
105	T2L18Y		116.20		116.20	116.20	116.20	116.20			
106	R20		108.00		108.00	108.00	108.00	108.00			
107	R82	Everest School	530.00		530.00	530.00	530.00	530.00			
108	T1L5		140.00		140.00	140.00	140.00	140.00			
109	T1L5A		533.50		533.50	533.50	533.50	533.50			
110	T3L23C	Jay Nepal	272.20		272.20	272.20	65.20	65.20			
111	T3L23C	North to Jay Nepal	82.90		82.90	82.90	82.90	82.90			
112	T3L25B		195.00		195.00	195.00	190.00				
113	T3L25C		140.00		140.00	140.00					
114	R3	T3 Trunk	465.00	220.00	685.00	685.00	370.00				
115	Nagmandir to R3		55.00		55.00	55.00	55.00	55.00			
116	R4		220.00	140.00	360.00	250.00	250.00	250.00			



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	
117	R75		143.50		143.50	143.50	143.50	143.50			
118	R43		329.40		329.40	329.40	329.40	329.40			
119	T219P		124.80		124.80	124.80	124.80	124.80			
120	T219Q		113.70		113.70	113.70	113.70	113.70			
121	R106		130.00	50.00	180.00	180.00	120.90				
122	T3L12		80.00		80.00	80.00	50.90	50.90			
123	R46		340.00		340.00	340.00	140.00				
124	T3L11E		124.55		124.55	124.55	124.55	124.55			
125	T3L13D		70.00		70.00	70.00					
126	T3L13C		100.00		100.00	100.00	100.00	100.00			
127	R34		157.00		157.00	157.00	157.00	157.00			
128	T3L13E		80.00		80.00	80.00	65.00	65.00			
129	T3L13K		154.00		154.00	154.00	75.90	75.90			
130	R19		247.00		247.00	247.00	228.00	228.00			



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	
131	R41		540.00		540.00	540.00	540.00	540.00			
132	R9B		90.00		90.00	90.00	90.00	83.85			
133	R67		119.40		119.40	119.40	119.40	119.40			
134	R74		100.00		100.00	100.00	100.00	100.00			
135	R9A		109.00		109.00	109.00	109.00	109.00			
136	T2L19F		120.00		120.00	120.00	117.20	117.20			
137	T3L7A		190.00		190.00	190.00	158.00	158.00			
	T3L7C			155.00	155.00	155.00	155.00				
	T3L13F			75.00	75.00	75.00	75.00				
	T3L11M			80.00	80.00	80.00	80.00	80.00			
	T3L11N			70.00	70.00	70.00					
	T3L13J			67.00	67.00	67.00					
	T3L33A (N7)			150.00	150.00						
	T3L33B			30.00	30.00						



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	
	R35			137.00	137.00	137.00	137.00				
	R83			130.00	130.00	130.00	130.00	130.00			
	R101			130.00	130.00	130.00					
	R105			160.00	160.00	160.00	160.00	160.00			
	R15			192.00	192.00	192.00	192.00	192.00			
	R181A			190.00	190.00	190.00	190.00				
	T3L5			285.00	285.00	285.00					
	N38			200.00	200.00	200.00	200.00				
	Total			53,226.93	2,841.00	56,067.93	55,457.93	51,171.98	47,826.95	210.00	18,395.30



Table No:-4.1Footpath (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		250.00	250.00	1.10	275.00	RHS
43	R3	Precast block	1,050.00		1,050.00	1,050.00	1.10	1,155.00	LHS
44	R27	Precast block	400.00		400.00	400.00	1.10	440.00	RHS
45	R27	Precast block	400.00		400.00	400.00	0.85	340.00	LHS
46	R26	Precast block	300.00		300.00	300.00	1.23	369.00	RHS
47	R26	Precast block	285.00		285.00	285.00	1.10	313.50	LHS
48	R25	Precast block	205.00		205.00	205.00	1.00	205.00	RHS
49	R25	Precast block	201.00		201.00	201.00	1.00	201.00	LHS
	Total =		17,697.00	790.00	18,487.00	18,487.00		21,474.10	



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	53,226.93	2,841.00	56,067.93	84.04%
2	Sub Base	m	66,718.00	53,226.93	2,231.00	55,457.93	83.12%
3	Base	m	66,718.00	48,987.98	2,184.00	51,171.98	76.70%
4	Prime/Tack	m	66,718.00	46,559.11	1,267.84	47,826.95	71.69%
5	Asphalt	m	66,718.00	46,559.11	1,267.84	47,826.95	71.69%

Note: Rigid road pavement is done only at B2 (3) near DPS School, east to B2 and 427.89m in length.



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	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	278.00		139.00	139.00		One Sided Drain Road
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 Lekhnath Marg	72.45	241.85	157.15	157.15		One Sided Drain Road



SN	Road Number	Name of Road	Length in m			Work Completed		Remarks
			Progress		Total	Brick	RCC	
			Previous	This Month		m	m	
17	R77	Arniko Marg	80.00		80.00	80.00		
18	R76	Mitra Marg	270.00		270.00	270.00		
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	Janpath 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	388.25		194.13	194.13		One Sided Drain Road
31	R2	Main Road	2,182.50	611.00	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 sidhartha 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		963.00		963.00	



SN	Road Number	Name of Road	Length in m			Work Completed		Remarks
			Progress		Total	Brick	RCC	
			Previous	This Month		m	m	
41	R21(a)	DharamBadh Junction	190.00		95.00	95.00		One Sided Drain Road
42	R78	Binayak Marga	70.00		70.00	70.00		
43	R188	Shakti Marg	115.60		115.60	115.60		
44	R40	Brahma Kumari Marga	328.20		328.20	328.20		
45	Rani Site C		97.50		97.50	97.50		
46	Ranit 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		95.00	8.20	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	60.00	30.00	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 Banglamukhi Marga	362.00		362.00	362.00		
60	R7c (Neuro to Shanti Chowk)	Siddhartha Marga	600.00		600.00	600.00		



SN	Road Number	Name of Road	Length in m			Work Completed		Remarks
			Progress		Total	Brick	RCC	
			Previous	This Month		m	m	
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		
66	T3L23A, R101		220.00		220.00	220.00		
67	Rani E		160.00		80.00	80.00		One Sided Drain Road
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	150.00	50.00	200.00	200.00		
77	R20		108.00		108.00	108.00		
78	T2L24F		115.50		115.50	115.50		
79	R105		172.00		86.00	86.00		One Sided Drain Road
80	R34	Prabhu Marg	158.35		158.35	158.35		
81	R35	Garima Marg	140.00		140.00	140.00		



SN	Road Number	Name of Road	Length in m			Work Completed		Remarks
			Progress		Total	Brick	RCC	
			Previous	This Month		m	m	
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		70.00		35.00	35.00		One Sided Drain Road
88	T3L21B			70.00	70.00	70.00		
89	T3L21A		25.00	25.00	50.00	50.00		
90	R74		96.00		96.00	96.00		
91	R46, (T3L7 and T3L22)	Rangeli Road	232.00	168.00	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		50.00	32.00	82.00	82.00		
104	R106		70.00		70.00	70.00		
105	R41		520.00		520.00	520.00		



SN	Road Number	Name of Road	Length in m			Work Completed		Remarks
			Progress		Total	Brick	RCC	
			Previous	This Month		m	m	
106	T2L19B		110.00	20.00	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		
115	T2L18K		40.00	34.70	74.70	74.70		
116	T3L23C		105.00		105.00	105.00		
117	T2L24E	Mahabir Marga	60.00	156.00	216.00	216.00		
118	R44		390.00	310.00	700.00	700.00		
119	R110		150.00	100.00	250.00	250.00		
120	Parichaya Marga		130.00	60.00	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		979.92	575.15	1,555.08	1,555.08		
125	T2L19F		55.00	63.00	118.00	118.00		
126	T2L18D		20.00	55.00	75.00	75.00		
127	R19		175.00	51.00	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		



SN	Road Number	Name of Road	Length in m			Work Completed		Remarks
			Progress		Total	Brick	RCC	
			Previous	This Month		m	m	
131	R4 (T2 Trunk)	Jatuwa Marga	230.00	50.00	280.00	-	280.00	
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		75.00	10.00	85.00	85.00		
136	R181		150.00	43.00	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		
140	T3L10, R6		170.00	170.00	340.00	340.00		
141	R47 (T3L10A)	Matrika Marga	125.00	25.00	150.00	150.00		
142	R12	Kanchhadai Marga	200.00	250.00	450.00	450.00		
143	R8 (b)	Sahayogi Marga	65.00		65.00	65.00		
144	T1L7A	Piyush Marga	40.00	30.00	70.00	70.00		
145	T1L7B			70.00				
146	T1L7C			70.00				
147	T1L8C			70.00				
148	R39	Maisthan Marga	50.00	50.00	100.00	100.00		
149	N7	Amar Marga	90.00	40.00	130.00	130.00		
150	N8	Amar Marga	120.00	40.00	160.00	160.00		
151	R26	Amar Marga	140.00	150.00	290.00	290.00		
152	T3L25A	Bhakti Marga	137.50	122.50	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		



SN	Road Number	Name of Road	Length in m			Work Completed		Remarks
			Progress		Total	Brick	RCC	
			Previous	This Month		m	m	
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		31,626.69	4686.40	35,316.82	34,073.82	1,243.00	

Note: *at One Sided Drain Road length, in total column the actual length is divided by two to make similarity with others row as in others row 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 are as 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), T3L22A, T3L22B, R7 & R24, etc. and water supply relocation works were completed at B1, T3L39, T3L39 Branch, T3L39A, T3L39B, T3L21, T3L23C, R44 (R2 to R7), R43 (R7 to R3) & R181, etc. The supply has been providing temporarily as per site condition and where required.

Relocation of electric poles completed at T3L5, T3 Trunk, R46, R7, R84, T2L18A, T2L18C, T2L18D, R35, Rani, R16, T3L21, T3L39 & T3L39A etc. and ongoing lanes are N38, 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	18	77	95	0	9	11	0	75	0



Labour class	Labour		Composition		Ethnic composition				
	Skilled	Unskilled	Male	Female	Janjati	Dalit	Muslim	Madhesi	Brahmin/ Chhetri
Non local	77	276	333	20	66	68	48	171	0
Indian	0	0	0	0	0	0	0	0	0
TOTAL	95	353	428	20	75	79	48	246	0



Table – 6: DISBURSEMENT RECORDS in CONSTRUCTION

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

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	
13	IPC 13	30 th November 2019	4 th June 2019 to 30 th June 2019	125,965,923.87	



S. No.	Description	Submission date	Covering date	Submitted Amount(NRs)	Remarks
14	IPC 14	31 st December 2019	1st December 2019 to 31st December 2019	63,509,092.84	
Total amount excluding PA & Mobilization advance till date =				1,955,384,063.81	

Note: The contractor asked for 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:

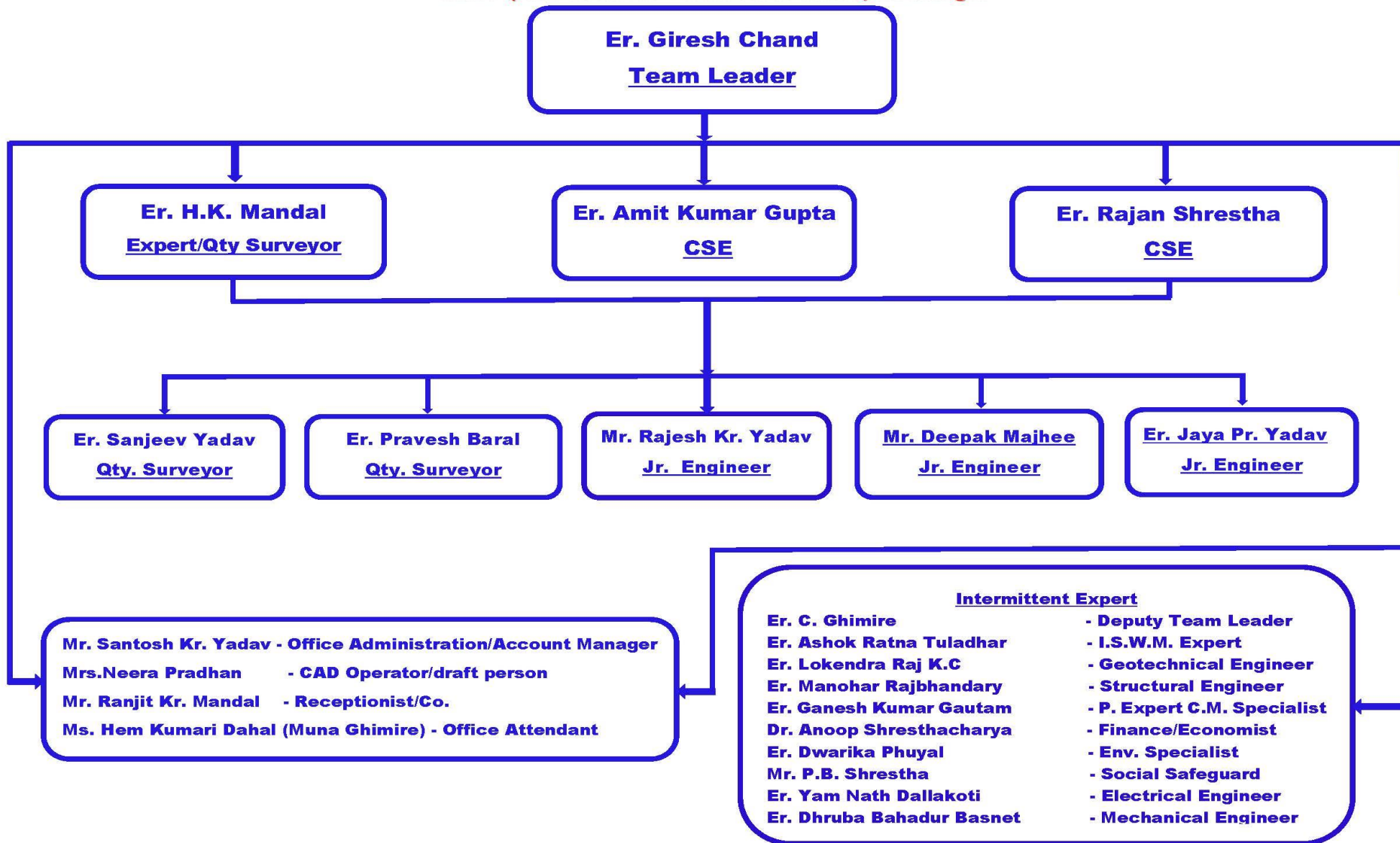
- Detailed Design and Procurement Assistance Phase for integrated solid waste management design (ISWM)
- Monthly progress report and quarterly progress report.
- Semi- annual Environmental monitoring report.
- Semi-annual Safeguard monitoring report.
- Annual progress report including annual Environmental / 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:

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 1st 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 80% 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
June-19	3.95%	75.03%	2.05%	69.33%				-5.70%	Lagging



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

5.3. KEYEVENTS

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

S. No.	Date	Activities/Events	Remarks
1		Frequent visit of sites by the representatives of the employer.	
2	30 th January 2020 – 2 nd February 2020	Site visit by BDA representatives Mr. Arun Swami, Chairman, Mr. Sudip Paudel, Executive Director and Mr. Anil Nepal, Director with their team of STIUEIP & RUDP, Biratnagar.	

6. DETAILS OF PRE CAST ACTIVITIES.

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		81,871.00	4,080.00	85,951.00	Under progress
2	Kerb Stone	Rm	147,729.68	96,293.30	2917.50	99,210.80	67.15%

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						

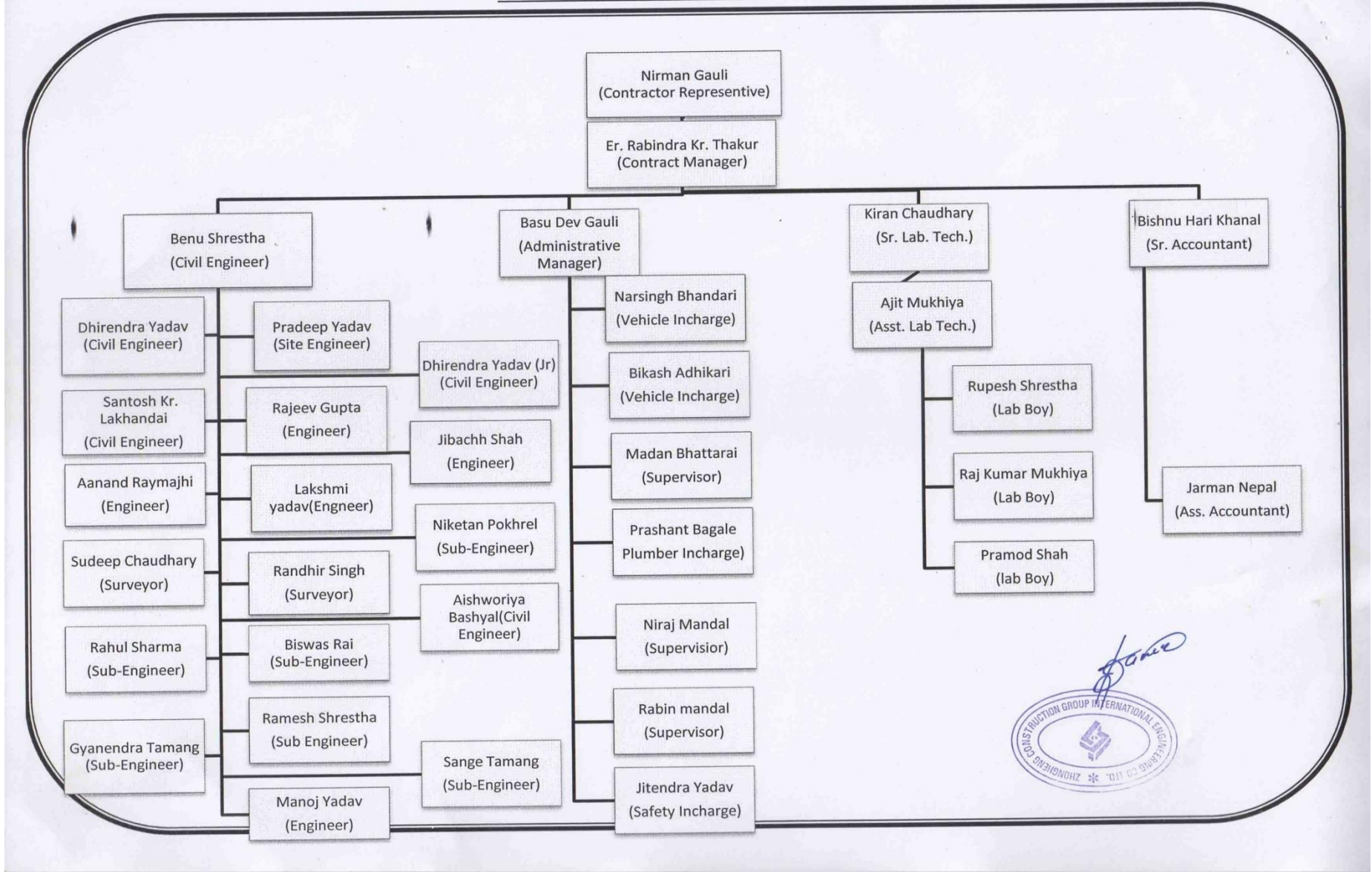
Table 11: PHYSICAL PROGRESS IN PRODUCTION/PURCHASE OF HDPE Pipe till date:

<i>Physical Progress till date</i>							
S.N.	Description	Diameter (mm)	Progress			Total to Date (RM.)	Remarks
			BoQ (RM)	Up to Previous month (RM.)	This Month (RM.)		
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							

<i>Physical Progress till date</i>							
S.N.	Description	Diameter (mm)	Progress			Total to Date (RM.)	Remarks
			BoQ (RM)	Up to Previous month (RM)	This Month (Rm.)		
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

S.No.	Position	Minimum Number Required as per Contract	ZHONGHENG CONSTRUCTION Group	Remarks
1	Project/Contract Manager (1 No) 15/10 Yrs. (Total/Similar Exp.)	1	1	
2	Civil Engineer-10/6	2	2	
3	Sanitary Engineer- (1no.)-12/8	1	-	
4	Road Engineer-(1no.)-12/8	1	1	
5	Electromechanical Engineer-(1no)- 10/5	1	-	
6	Safety Engineer	-	1	
7	Site Engineer	-	8	
8	Sub- Engineer	-	7	
9	Accountant	-	3	
10	Lab Technician	-	6	
11	Store Keeper	-	1	
12	Vehicle In charge	-	2	
13	Skilled Labors		95	
14	Unskilled Labors		353	

8. CONTRACTOR'S EQUIPMENT

S. No.	Equipment Type and Characteristics	Min Number required as per Contract	ZHONGHENG CONSTRUCTION Group	Remarks
1	Excavator (200 above)	5	1	Backhoe loader-9 nos.
2	Crane (10 ton capacity)	3	-	
3	Asphalt plant of adequate capacity	1	1	
4	Asphalt pavers	1	1	
5	Vibrating roller	2	4	Among 4nos., 2ton rollers-2nos.
6	Pneumatic tyre roller 8 to 10 ton	2	1	
7	Smooth wheeled roller 8 to 10 ton	1	1	
8	Grader	1	3	
9	Track Dozer (120 to 180 HP)	1	-	
10	Bitumen distributor (4 to 6 Kilo Litres)	1	1	
11	Water browser (minimum 5000 Litres)	3	9	
12	Chips spreader	1	-	
13	Bitumen decanter minimum 4000 Litres. (preheating container)	2	2	
	Air compressor	2	2	
14	Tipping Trucks	5	2	
15	Service vehicle	15	4	
16	Survey equipment (Total station with accessories)	2	1	
17	Theodolite	1	-	
18	Levelling	2	27	

S. No.	Equipment Type and Characteristics	Min Number required as per Contract	ZHONGHENG CONSTRUCTION Group	Remarks
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 January, 2020





Relocation of electric poles at Hospital chowk in Rangeli road



Road painting at R2



In situ drain cover casting at Rangeli road



Pipe laying for HCC at R110



Brick drain at Kanchha dai Marga



Brick drain at T1L8B (School Marga)

ANNEX-2: Minutes of Meeting January, 2020

Not Any



ANNEX-3: Laboratory Test Results of January, 2020

ATTACHED



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 JANUARY-2020

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	Page no 1 of 1	
											Application Rate	Application Rate
1	R-15	22-Jan-20	0+000	0+193	BHS	733.4	0	733.40	400	0.55	Application Rate	0.53
2	N-2	22-Jan-20	0+000	0+110	BHS	418	0	418	250	0.60	By Tray Test Lit/m2	0.55
3	R-4	22-Jan-20	0+000	0+255	BHS	1797.75	0	1797.75	1000	0.56		0.50
4	R-105	23-Jan-20	0+000	0+160	BHS	889.6	0	889.60	500	0.56		0.54
5	T3L11M	23-Jan-20	0+000	0+085	BHS	270.3	0	270.30	150	0.55		0.53
6	R-84	23-Jan-20	0+000	0+145	BHS	688.75	0	688.75	400	0.58		0.57
7	R-83	23-Jan-20	0+000	0+127	BHS	584.2	0	584.20	300	0.51		0.49

Required tack coat is 0.40 to 0.60Lit/M2 According to Road Note -3,Section 711.2
 Specific Gravity of Bitumen 1.020

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



REGIONAL URBAN DEVELOPMENT PROJECT
 Biratnagar Metropolitan City
 Contract No: RUDP/ICB/BRT-02
 Daily Application Rate Check for TACK COAT

Type of Bitumen: 80/100 P.G

SUMMARY FOR THE MONTH OF JANUARY-2020

S.N.	Location	Date of Tack coat	Station		Side of Tack coat	Area of Tack coat	Intersection Area m2	Total Area M2	Bitumen Consumption	Application Rate By Dip Lit/m2	Page no 1 of 2	
			From	to							Application Rate Bt Tray Test Lit/m2	Application Rate
8	T3L10C	24-Jan-20	0+000	0+100	BHS	496	0	496.00	300	0.60	0.51	
9	R-3	24-Jan-20	0+000	0+145	BHS	1058.5	0	1058.5	600	0.57	0.54	
10	T3L21A	24-Jan-20	0+000	0+070	BHS	350	0	350.00	200	0.57	0.49	
11	T3L19A	24-Jan-20	0+000	0+050	BHS	212.5	0	212.50	125	0.59	0.52	
								Total	4225			

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

Specific Gravity of Bitumen 1.020

 Contractor	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 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/CB/BRT-02

Daily Application Rate Check for Priming work

SUMMARY FOR THE MONTH OF JANUARY 2020

Type of Bitumen: 80/100 P.G

Cutter Percentage: MC 70:MC30

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	N-2	10-Jan-20	0+000	0+110	Both side	440.00	0.00	440.00	450	1.02	1.04
2	R-4	10-Jan-20	0+000	0+255	Both Side	1797.75	0.00	1797.75	1900	1.06	1.03
3	T3L21A	11-Jan-20	0+000	0+070	Both Side	350.00	0.00	350.00	375	1.07	1.04
4	T3L39A	11-Jan-20	0+000	0+050	Both Side	212.50	0.00	212.50	225	1.06	1.04
5	R-105	16-Jan-20	0+000	0+160	Both Side	889.60	0.00	889.60	950	1.07	1.03
6	T3L25C	16-Jan-20	0+000	0+170	Both Side	680.00	0.00	680.00	700	1.03	1.01
7	R-3	17-Jan-20	0+000	0+146	Both Side	1065.80	0.00	1065.80	1150	1.08	1.04
8	R-15	18-Jan-20	0+000	0+193	Both Side	816.39	0.00	816.39	850	1.04	1.03
9	R-84	19-Jan-20	0+000	0+145	Both Side	688.75	0.00	688.75	750	1.09	1.03

Required specification for Prime coat 1.0 Lit/M2 ± 5% Specific Gravity of Bitumen 1.020

<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/RajanShrestha</p>	<p>Approved By Team Leader Giresh Chand</p>



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 JANUARY 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 (m ²)	Intersection Area m ²	Total Area M ²	Bitumen Consumption (Ltr)	Application Rate By Deep Ltr/m ²	Application Rate Bt Tray Test Ltr/m ²	Page no 1 of 2
10	R-45	20-Jan-20	0+000	0+100	Both side	825.00	0.00	825.00	850	1.03	1.04	
11	T3L11M	21-Jan-20	0+000	0+085	Both Side	270.30	0.00	270.30	275	1.02	1.04	
12	T3L10C	21-Jan-20	0+000	0+100	Both Side	496.00	0.00	496.00	500	1.01	1.03	
13	R-45	23-Jan-20	0+000	0+220	Both Side	996.00	0.00	996.00	1050	1.05	1.03	
14	R-46	24-Jan-20	0+000	0+240	Both Side	1944.00	0.00	1944.00	2100	1.08	1.03	
15	T3L39	25-Jan-20	0+000	0+090	Both Side	628.20	0.00	628.20	675	1.07	1.05	
16	R-181A	25-Jan-20	0+000	0+192	Both Side	787.20	0.00	787.20	850	1.08	1.04	
						Total		13650				

Required specification for Prime coat 1.0 Lit/M² ± 5% Specific Gravity of Bitumen 1.020

<p>Contractor: ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD</p> <p>Checked By: Engineer Dhirendra Yadav</p>	<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>Verified By: Expert Qty Surveyor/CSE H.K. Mandal/RajanShrestha</p> <p>Submitted By: Contract Manager Rabindra Kr. Thakur</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/RajanShrestha</p> <p>..... Approved By Team Leader Gireesh Chand</p>



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 JANUARY 2020

S. No.	Lab No.	Date of Laying	Location of Work ch:	Mix Agg Gradation							Blotmen Content From Extraneous Mat %	Mix Density gm/cc	Air Voids %	VMA %	Stability N	Flow mm
				20	16	9.5	4.75	2.36	0.6	0.075						
1	172	22/1/2020	R-15,(0+000 to 0+193)	100	100	77.21	56.43	35.22	16.78	6.60	5.68	2.375	3.05	16.26	9931	2.30
2	173	22/1/2020	N-2,(0+000 to 0+110)	100	100	80.06	55.04	36.37	18.03	7.42	5.70	2.361	3.12	16.31	10347	2.38
3	174	23/1/2020	R-4,(0+000 to 0+255)	100	100	81.39	54.38	34.18	20.89	8.02	5.96	2.361	3.50	17.30	10411	2.43
4	175	23/1/2020	R-105,(0+000 to 0+160)	100	100	81.94	55.92	35.74	18.33	6.22	5.85	2.364	3.11	16.65	10955	2.25
5	176	23/1/2020	T3L11M,(0+000 to 0+085)	100	100	81.94	55.92	35.74	18.33	6.22	5.85	2.365	3.11	16.65	11648	2.27
6	177	23/1/2020	R-84,(0+000 to 0+145)	100	100	82.09	56.33	36.83	19.87	8.10	5.65	2.372	3.29	16.44	11211	2.50
7	178	23/1/2020	R-83,(0+000 to 0+127)	100	100	81.53	55.63	35.03	16.88	6.26	5.80	2.371	3.24	16.72	10677	2.33
8	179	24/1/2020	T3L10C,(0+000 to 0+100)	100	100	81.84	56.36	35.65	17.70	7.40	5.83	2.369	3.23	16.77	10624	2.18
9	180	24/1/2020	R-3,(0+000 to 0+145)	100	100	81.63	55.52	34.61	16.88	7.75	5.80	2.367	3.08	16.54	10240	2.33
10	181	24/1/2020	T3L21,(0+000 to 0+070)	100	100	80.97	55.13	38.87	19.84	8.67	5.94	2.365	3.04	16.82	10933	2.58
11	182	24/1/2020	T3L39A,(0+000 to 0+050)	100	100	81.89	56.14	35.28	17.69	7.73	5.60	2.366	3.72	16.71	10805	2.35
Specifications				100	100-100	76-82	54-59	33-37	16-21	6 to 9	5.703	Min2.358	3-6%	≥ 15	≥ 8500	2-3
Job Mix Tolerances from RUDP Specification Table2-4-10				±5%	Nil	±5%	±3%	±2%	±1%	Nil	±0.3%					

REMARKS:

<p>Contractor</p> <p>ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD</p> <p>Submitted By Contract Manager Rabindra Kr. Thakur</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 City Surveyor/CSE H.K. Mandal</p> <p>Approved By Team Leader Gireesh Chand</p>
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<p>REGIONAL URBAN DEVELOPMENT PROJECT Biratnagar Metropolitan City Contract No:- RUDP/ICB/BRT-02 <u>Summary Sheet of Monthly Test Report</u></p>										
<p>Location:-R-181A</p>						<p>Month: January</p>	<p>Year: 2020</p>		<p>Type of Material: Sub grade</p>	
Sn.	Lab.Ref no.	Location/Chainage	Source of Sample	Date of Testing	MDD	OMC	PI%	CBR%	Remarks	
1	RUDP-SG-01	R-181A,(0+100)	Existing Road	2-Jan-20	1.941	6.80	7.46	4.90		
<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 Dharendra 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 Giresch Chand</p>		



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Field Density Test

Location:-R-181A

		Month	Year			Type of Material		Sub-Grade	
		January	2020			Density(gm/cc)		Compaction %	
Sn.	Lab.Ref.no	Testing Date	Chainage	Moisture content %		Max. Dry density gm/cc	Field Dry density, gm/cc	Compaction %	Specified %
				OMC%	Field MC%				
1	RUDP-SG-FD-1, R/S	6-Jan-20	0+050	6.80	6.74	1.941	1.853	95.49	95
2	RUDP-SG-FD-1, L/S	6-Jan-20	0+080	6.80	7.65	1.941	1.893	97.55	95
3	RUDP-SG-FD-1, L/S	6-Jan-20	0+120	6.80	7.87	1.941	1.902	97.99	95
4	RUDP-SG-FD-1, R/S	6-Jan-20	0+180	6.80	7.62	1.941	1.851	95.37	95



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

[Signature]
Checked By
Engineer
Dhirendra Yadav

[Signature]
Submitted By
Contract Manager
Rabindra Kr Thakur

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



[Signature]
Approved By
Team Leader
Giresh Chand

REGIONAL URBAN DEVELOPMENT PROJECT

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

Summary Sheet of Monthly Test Report

Month:	January ✓
Year	2020
Type of Material	Sub grade ✓

Location:-R-3

Sn.	Lab.Ref no.	Location/Chainage	Source of Sample	Date of Testing	MDD	OMC	PI%	CBR%	Remarks
1	RUDP-SG-01	R-3,(5+500)	Existing Road	1-Jan-20	1.966	7.50	9.41	6.84	

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



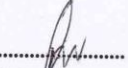
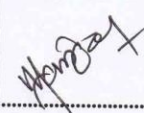

.....
Submitted By
Contract Manager
Rabindra Kr. Thakur

.....
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-3											
				Moisture content %		Density(gm/cc)		Compaction %							
Sn.	Lab.Ref.no	Testing Date	Chainage												
				OMC%	Field MC%	Max.Dry density gm/cc	Field Dry density, gm/cc	Compaction %	Specified %						
1	RUDP-SG-FD-1, L/S	2-Jan-20	5+480	7.50	7.16	1.966	1.918	97.58	95						
2	RUDP-SG-FD-1, C/L	2-Jan-20	5+500	7.50	7.98	1.966	1.880	95.63	95						
3	RUDP-SG-FD-1, C/L	2-Jan-20	5+550	7.50	7.39	1.966	1.913	97.29	95						
4	RUDP-SG-FD-1, R/S	2-Jan-20	5+580	7.50	7.21	1.966	1.922	97.79	95						
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">  </td> <td style="width: 50%; text-align: center;">  </td> </tr> <tr> <td style="text-align: center;">  Checked By Engineer Dharendra Yadav </td> <td style="text-align: center;">  Submitted By Contract Manager Rabindra Kr Thakur </td> </tr> <tr> <td style="text-align: center;">  Verified By Expert Qty Surveyor/CSE H.K. Mandal/Rajan Shrestha </td> <td style="text-align: center;">  Approved By Team Leader Giresh Chand </td> </tr> </table>												 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
															
 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									
<u>Summary Sheet of Monthly Test Report</u>									
Location:-R-8						Month:		Year	
						January		2020	
						Type of Material		Sub grade	
Sn.	Lab.Ref no.	Location/Chainage	Source of Sample	Date of Testing	MDD	OMC	PI%	CBR%	Remarks
1	RUDP-SG-01	R-8,(0+080)	Existing Road	3-Jan-20	1.958	7.15	7.01	6.94	
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




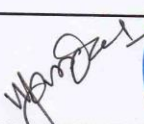

Summary Sheet of Field Density Test

Location:-R-8

Sn.	Lab.Ref.no	Testing Date	Chainage	Moisture content %		Density (gm/cc)		Sub-Grade Compaction %	
				OMC%	Field MC%	Max.Dry density gm/cc	Field Dry density, gm/cc	Compaction %	Specified %
								Month	January
								Year	2020
1	RUDP-SG-FD-1, R/S	6-Jan-20	0+020	7.15	6.60	1.958	1.891		
2	RUDP-SG-FD-1, L/S	6-Jan-20	0+080	7.15	7.36	1.958	1.884		
3	RUDP-SG-FD-1, C/L	6-Jan-20	0+120	7.15	7.06	1.958	1.911		
4	RUDP-SG-FD-1, R/S	6-Jan-20	0+140	7.15	7.68	1.958	1.889		

 <p>Contractor ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD.</p>	<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>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 Gresh Chand</p>



REGIONAL URBAN DEVELOPMENT PROJECT Biratnagar Metropolitan City Contract No:- RUDP/ICB/BRT-02 <u>Summary Sheet of Monthly Test Report</u>									
Location:-N-38						Month:		January	
						Year		2020	
						Type of Material		Sub grade	
Sn.	Lab.Ref no.	Location/Chainage	Source of Sample	Date of Testing	MDD	OMC	PI%	CBR%	Remarks
1	RUDP-SG-01	N-38,(0+150)	Existing Road	2-Jan-20	1.963	7.00	8.47	6.80	
					✓	✓	✓	✓	
					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 Gresh Chand			



REGIONAL URBAN DEVELOPMENT PROJECT

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

Summary Sheet of Field Density Test

Location:-N-38

Sn.	Lab.Ref.no	Testing Date	Chainage	Moisture content %		Density(gm/cc)		Sub-Grade Compaction %	
				OMC%	Field MC%	Max.Dry density gm/cc	Field Dry density, gm/cc	Compaction %	Specified %
						Type of Material			
1	RUDP-SG-FD-1, L/S	6-Jan-20	0+030	7.00	7.28	1.963	1.908	97.18	95
2	RUDP-SG-FD-1, C/L	6-Jan-20	0+065	7.00	7.93	1.963	1.888	96.18	95
3	RUDP-SG-FD-1, L/S	6-Jan-20	0+120	7.00	7.53	1.963	1.908	97.20	95
4	RUDP-SG-FD-1, R/S	6-Jan-20	0+180	7.00	7.58	1.963	1.923	97.99	95

 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 Gresh Chand



REGIONAL URBAN DEVELOPMENT PROJECT

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

Summary Sheet of Field Density Test

Location:-R-7,T3L10F

Month	January
Year	2020
Type of Material	Sub-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-SB-FD-1, R/S	8-Jan-20	0+780	5.80	5.92	2.212	2.150	97.18	95
2	RUDP-SB-FD-1, C/L	8-Jan-20	0+800	5.80	5.22	2.212	2.116	95.68	95
3	RUDP-SB-FD-1, L/S	8-Jan-20	0+850	5.80	5.14	2.212	2.140	96.75	95
4	RUDP-SB-FD-1, C/L	8-Jan-20	0+920	5.80	5.47	2.212	2.164	97.82	95
5	RUDP-SB-FD-1, R/S	8-Jan-20	0+940	5.80	5.29	2.212	2.143	96.30	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 Dharendra Yadav	 Submitted By Contract Manager Rabindra Kr. Thakur	 Verified By Export Qty Surveyor/CSE H.k. Mandal/Rajan Shrestha	 Approved By Team Leader Giresh Chand



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

													Month: <u>January</u>									
													Year: <u>2020</u>									
													Type of Material: <u>Sub-base</u>									
Sn.	Lab. Ref no.	Location of Sample	Source of Sample	Date of Testing	Sieve Size in mm / passing % By Weight							MDD	OMC	PI%	CBR%	Remarks						
					63.0	37.5	20.0	10.0	5.0	2.36	1.18						0.075					
1	RUDP-SB-01	R-3,(5+500)	Chisang Khola	5-Jan-20	100	86.32	76.31	55.64	37.08	21.21	17.28	7.95	2.216	5.60	1.72	47.00	✓					
											Spec. Limit:	100	65-95	50-85	40-75	30-60	20-45	15-37	4-15	<6	>30	✓

 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 Field Density Test

Location:-R-3

Month	January ✓
Year	2020 ✓
Type of Material	Sub-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-SB-FD-1, R/S	6-Jan-20	5+480	5.60	5.33	2.216	2.150	97.04	95
2	RUDP-SB-FD-1, C/L	6-Jan-20	5+500	5.60	5.00	2.216	2.121	95.70	95
3	RUDP-SB-FD-1, L/S	6-Jan-20	5+520	5.60	5.55	2.216	2.132	96.19	95
4	RUDP-SB-FD-1, R/S	6-Jan-20	5+550	5.60	5.50	2.216	2.163	97.62	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 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 Field Density Test

Location:-T3L25C Extension

Month	January ✓
Year	2020 ✓
Type of Material	Sub-Base ✓

Sn.	Lab.Ref.no	Testing Date	Chainage	Moisture content %		Density(gm/cc)		Compaction %	
				OMC%	Field MC%	Max.Dry density	Field Dry density,	Compac tion	Specified %
1	RUDP-SB-FD-1, R/S	6-Jan-20	0+040	6.80	5.88	2.226	2.142	96.22	95
2	RUDP-SB-FD-1, L/S	6-Jan-20	0+080	6.80	5.58	2.226	2.165	97.25	95

<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 Export Qty Surveyor/CSE H.k. Mandal/Rajan Shrestha</p>	<p style="text-align: center;"></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:	January			
													Year:	2020			
													Type of Material:	Sub-base			
													Location :-	T3L11M			
Sn.	Lab Ref no.	Location of Sample	Source of Sample	Date of Testing	Sieve Size in mm / passing % By Weight							MDD	OMC	PI%	CBR%	Remarks	
					63.0	37.5	20.0	10.0	5.0	2.36	1.18						0.075
1	RUDP-SB-01	T3L11M,(0+050)	Chisang Khola	7-Jan-20	100	90.31	69.12	54.21	35.37	28.25	20.54	8.38	2.218	5.25	1.52	45.50	
Spec. Limit :					100	65-95	50-85	40-75	30-60	20-45	15-37	4-15				<6	>30

Contractor ZHONGHEN GROUP INTERNATIONAL ZHONGHEN CONSTRUCTION GROUP LTD 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. 
Submitted By Contract Manager Rabindra Kr. Thakur 	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

Summary Sheet of Field Density Test

Month	January
Year	2020
Type of Material	Sub-Base

Location:-T3L11M




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-SB-FD-1, R/S	9-Jan-20	0+040	5.25	5.69	2.218	2.167	97.71	95
2	RUDP-SB-FD-1, L/S	9-Jan-20	0+080	5.25	5.17	2.218	2.148	96.86	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 Dharendra Yadav	 Submitted By Contract Manager Rabindra Kr. Thakur	 Verified By Export Qty Surveyor/CSE H.k. Mandal/Rajan Shrestha	 Approved By Team Leader Giresh Chand

REGIONAL URBAN DEVELOPMENT PROJECT

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

Summary Sheet of Monthly Test Report

																Month Year		January 2020													
																Type of Material				Base											
S.N.	Lab/Ref.no.	Location of Sample	Source of Sample	Date of Testing	Sieve Size in mm / % passing By Weight						MDD	OMC	PI%	L.A.A. %	FI and EI %	A.I.V. %	CR %	CBR %	Remarks												
					40	31.5	20	10	4.75	2.36										0.6	0.075										
1	RUDP-B-01	T3L25C,(0+060)	Chisang Khola	10-Jan-20	100	94.78	77.21	42.30	34.90	26.86	14.68	5.85	2.247	4.75	NP	31.50	18.39/16.58	21.77	82.55	81.60											
																Spec. Limit : 100 85-100 62-92 40-70 26-55 21-53 12-28 2-10															
																<45				<35				>80							
																Consultant															
																BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL															
																<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Checked By Engineer Dhirendra Yadav</p> </div> <div style="width: 45%;"> <p>Submitted By Contract Manager Rabindra Kr. Thakur</p> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="width: 45%;"> <p>Contractor ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD </p> </div> <div style="width: 45%;"> <p>Verified By Expert Qty Surveyor/CSE H.K. Mandal/Rajan Shrestha</p> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="width: 45%;"> <p>Contractor ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD </p> </div> <div style="width: 45%;"> <p>Approved By Team Leader Gireesh Chand</p> </div> </div> <div style="display: flex; justify-content: center; margin-top: 20px;">  </div>															



REGIONAL URBAN DEVELOPMENT PROJECT

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

Summary Sheet of Field Density Test

Month	January
Year	2020
Type of Material	Base

Location:-T3L25C,Extension

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-Jan-20	0+020	4.75	5.53	2.247	2.225	99.01	98
2	RUDP-B-FD-1, C/L	12-Jan-20	0+040	4.75	5.06	2.247	2.214	98.52	98
3	RUDP-B-FD-1, R/S	12-Jan-20	0+080	4.75	5.34	2.247	2.210	98.37	98

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





REGIONAL URBAN DEVELOPMENT PROJECT

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

Summary Sheet of Monthly Test Report

		Month		January										
		Year		2020										
		Type of Material				Base								
S.N.	Lab.Ref no.	Location of Sample	Source of Sample	Date of Testing	Sieve Size in mm / % passing By Weight	MDD	OMC	PI%	L.A.A. %	Fl and El %	A.I.V. %	CR %	CBR %	Remarks
1	RUDP-B-01	R-3,(5+050)	Chisang Khola	7-Jan-20	40 31.5 20 10 4.75 2.36 0.6 0.075 100 88.08 63.40 52.51 36.72 31.52 14.95 5.72 2.258 5.15 NP	20.72	19.54	81.59	83.50					
Spec. Limit : 100 85-100 62-92 40-70 26-55 21-53 12-28 2-10														

 ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO., LTD.	 RUDP Building Design Authority
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 Gireesh Chand
Consultant BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL	



REGIONAL URBAN DEVELOPMENT PROJECT

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

Summary Sheet of Field Density Test

Location:-R-3

Month	January
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	9-Jan-20	5+480	5.15	5.70	2.258	2.250	99.65	98
2	RUDP-B-FD-1, C/L	9-Jan-20	5+500	5.15	5.11	2.258	2.233	98.91	98
3	RUDP-B-FD-1, R/S	9-Jan-20	5+550	5.15	5.68	2.258	2.227	98.62	98
				✓		✓	✓	✓	✓

<p>Contractor ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD</p> 		<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>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:	January ✓
Year	2020 ✓
Type of Material	Sub grade ✓

Location:-R-46

Sn.	Lab.Ref no.	Location/Chainage	Source of Sample	Date of Testing	MDD	OMC	PI%	CBR%	Remarks
1	RUDP-S-01	R-46,(0+100)	Existing Road	9-Jan-20	1.984	9.40	8.55	7.38	
2	RUDP-S-02	R-46,(0+200)	Existing Road	9-Jan-20	1.975	10.10	8.71	7.13	

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 Ravindra k. Thakur
 Approved By Team Leader Giresh Chand	 Verified By Expert Qty Surveyor/CSE andal/Rajan Shrestha



REGIONAL URBAN DEVELOPMENT PROJECT

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

Summary Sheet of Field Density Test

Location:-R-46

Month	January ✓
Year	2020 ✓
Type of Material	Sub-Grade ✓

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, R/S	9-Jan-20	0+040	9.40	7.89	1.984	1.911	96.71	95
2	RUDP-SG-FD-1, R/S	9-Jan-20	0+090	9.40	7.89	1.984	1.901	97.31	95
3	RUDP-SG-FD-1, C/S	9-Jan-20	0+120	9.40	7.06	1.984	1.928	97.21	95
4	RUDP-SG-FD-1, R/S	9-Jan-20	0+180	10.10	8.54	1.975	1.898	97.81	95
5	RUDP-SG-FD-1, L/S	9-Jan-20	0+200	10.10	8.30	1.975	1.912	96.98	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 Ravindra K. Thakur
 Verified By Expert Qty Surveyor/CSE H.K. Mandal/Rajan Shrestha	 Approved By Team Leader Giresh Chand



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Monthly Test Report

Month:	January
Year	2020
Type of Material	Sub grade

Location:-T2L18C

Sn.	Lab.Ref no.	Location/Chainage	Source of Sample	Date of Testing	MDD	OMC	PI%	CBR%	Remarks
1	RUDP-SG-01	T2L18C,(0+060)	Existing Road	7-Jan-20	1.975	8.80	7.89	6.40	
Sp. Limit								<18	>3

 Contractor ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD.	Consultant BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL
 Checked By Engineer Dhirendra 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 Field Density Test

Location:-T2L18C

Month	January
Year	2020
Type of Material	Sub-Grade

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, L/S	10-Jan-20	0+030	8.80	6.34	1.975	1.898	96.10	95
2	RUDP-SG-FD-1, C/L	10-Jan-20	0+050	8.80	6.26	1.975	1.918	97.11	95
3	RUDP-SG-FD-1,L/S	10-Jan-20	0+070	8.80	7.05	1.975	1.909	96.67	95
4	RUDP-SG-FD-1,R/S	10-Jan-20	0+100	8.80	7.04	1.975	1.899	96.17	95

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 Monthly Test Report

Month:	January
Year	2020
Type of Material	Sub grade

Location:-T3L11M

Sn.	Lab.Ref no.	Location/Chainage	Source of Sample	Date of Testing	MDD	OMC	PI%	CBR%	Remarks
1	RUDP-SG-01	T3L11M,(0+050)	Existing Road	3-Jan-20	1.990	7.50	10.37	6.50	
					✓	✓	✓	✓	

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

Location:-T3L11M

Month	January
Year	2020
Type of Material	Sub-Grade

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, R/S	6-Jan-20	0+020	7.50	7.06	1.990	1.917	96.34	95
2	RUDP-SG-FD-1, R/S	6-Jan-20	0+050	7.50	6.59	1.990	1.938	97.40	95
3	RUDP-SG-FD-1, L/S	6-Jan-20	0+080	7.50	6.16	1.990	1.935	97.26	95

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 Monthly Test Report

Month:	January
Year	2020
Type of Material	Sub grade

Location:-T3L13F

Sn.	Lab.Ref no.	Location/Chainage	Source of Sample	Date of Testing	MDD	OMC	PI%	CBR%	Remarks
1	RUDP-SG-01	T3L13F,(0+040)	Existing Road	6-Jan-20	1.920	7.10	8.08	5.71	
					✓	✓	✓	✓	

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





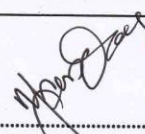


REGIONAL URBAN DEVELOPMENT PROJECT

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

Summary Sheet of Field Density Test

Location:-T3L13F

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 %
				Month		Year		Type of Material	Sub-Grade
1	RUDP-SG-FD-1, R/S	8-Jan-20	0+020	7.10	6.92	1.920	1.842	95.94	95
2	RUDP-SG-FD-1, L/S	8-Jan-20	0+050	7.10	7.05	1.920	1.880	97.92	95

Contractor	Consultant
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD <div style="text-align: center; margin-top: 20px;">  Checked By Engineer Dhirendra Yadav </div>	BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL <div style="text-align: center; margin-top: 20px;">  Submitted By Contract Manager Rabindra Kr Thakur </div>
<div style="text-align: center; margin-top: 20px;">  Verified By Expert Qty Surveyor/CSE H.K. Mandal/Rajan Shrestha </div>	 <div style="text-align: center; margin-top: 20px;">  Approved By Team Leader Giresh Chand </div>

REGIONAL URBAN DEVELOPMENT PROJECT

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

Summary Sheet of Monthly Test Report

Location:-T3L7B						Month:		January	
						Year		2020	
						Type of Material		Sub grade	
Sn.	Lab.Ref no.	Location/Chainage	Source of Sample	Date of Testing	MDD	OMC	PI%	CBR%	Remarks
1	RUDP-SG-01	T3L7B,(0+080)	Existing Road	6-Jan-20	1.970	6.65	9.58	8.00	

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 Field Density Test

Location:-T3L7B

Month	January
Year	2020
Type of Material	Sub-Grade

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, L/S	9-Jan-20	0+030	6.65	7.28	1.970	1.903	96.62	95
2	RUDP-SG-FD-1, R/S	9-Jan-20	0+065	6.65	7.93	1.970	1.873	95.09	95
3	RUDP-SG-FD-1, L/S	9-Jan-20	0+090	6.65	7.53	1.970	1.888	95.84	95
4	RUDP-SG-FD-1, R/S	9-Jan-20	0+150	6.65	7.58	1.970	1.898	96.35	95

<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, BHATHMANDU, NEPAL</p> 
<p style="text-align: center;">  Checked By Engineer Dharendra Yadav </p>	<p style="text-align: center;">  Submitted By Contract Manager Rabindra Kr. Thakur </p>
<p style="text-align: center;">  Verified By Expert Qty Surveyor/CSE H.K. Mandal/Rajan Shrestha </p>	<p style="text-align: center;">  Approved By Team Leader Giresch Chand </p>





REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Monthly Test Report

Sn.	Lab.Ref no.	Location of Sample	Source of Sample	Date of Testing	Sieve Size in mm / passing % By Weight										MDD	OMC	PI%	CBR%	Remarks	Month: Year Type of Material Sub-base			
					63.0	37.5	20.0	10.0	5.0	2.36	1.18	0.075	63.0	75.70							84.20	90.00	97.50
1	RUDP-SB-01	N-38,(0+100)	Chisang Khola	20-Jan-20	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	46.00		January 2020 Sub-base			
2	RUDP-SB-02	N-38,(0+200)	Chisang Khola	20-Jan-20	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	1.01					
3	RUDP-SB-03	N-38,(0+300)	Chisang Khola	20-Jan-20	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	1.11					
					Spec. Limit :																		
					100	65-95	50-85	40-75	30-60	20-45	15-37	4-15								<6	>30		

 <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 Export Qty Surveyor/CSE H.K. mandal/Rajan Shrestha</p>	<p>..... Approved By Team Leader Gireesh Chand</p>



REGIONAL URBAN DEVELOPMENT PROJECT

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

Summary Sheet of Field Density Test

Location:-N-38

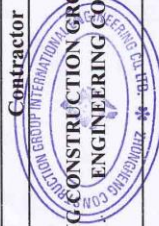





Month	January
Year	2020
Type of Material	Sub-Base

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-SB-FD-1, L/S	24-Jan-20	0+090	6.45	5.55	2.228	2.125	95.37	95
2	RUDP-SB-FD-1, C/L	24-Jan-20	0+160	6.45	5.01	2.228	2.162	97.05	95
3	RUDP-SB-FD-1, R/S	24-Jan-20	0+210	6.45	4.65	2.228	2.153	96.61	95
4	RUDP-SB-FD-1, L/S	24-Jan-20	0+290	6.45	5.29	2.228	2.159	96.89	95
5	RUDP-SB-FD-1, R/S	24-Jan-20	0+300	6.45	5.29	2.228	2.152	96.58	95

<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 Giresch Chand</p>

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

Month: January 2020		Year 2020		Sub-base														
Sn.	Lab. Ref no.	Location of Sample	Source of Sample	Date of Testing	Sieve Size in mm / passing % By Weight	MDD	OMC	PI%	CBR%	Remarks								
						63.0	37.5	20.0	10.0	5.0	2.36	1.18	0.075					
						100	84.56	66.94	55.98	46.99	37.73	17.19	9.26	2.230	6.20	0.99	43.00	
Spec. Limit : 100						65-95	50-85	40-75	30-60	20-45	15-37	4-15			<6	>30		

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  Dhirendra yadav Engineer	Submitted By  Rabinendra Kr. Thakur Contract Manager
	Verified By  H.K. Mandal/Rajjan Shrestha Expert Qty Surveyor/CSE
	Approved By  Gireesh Chand Team Leader

REGIONAL URBAN DEVELOPMENT PROJECT


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

Summary Sheet of Field Density Test

Location:-T2L18C

Month	January
Year	2020
Type of Material	Sub-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-SB-FD-1, R/S	17-Jan-20	0+030	6.20	5.61	2.230	2.157	96.71	95
2	RUDP-SB-FD-1, L/S	17-Jan-20	0+050	6.20	5.95	2.230	2.130	95.53	95
3	RUDP-SB-FD-1, R/S	17-Jan-20	0+100	6.20	5.99	2.230	2.157	96.73	95

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



REGIONAL URBAN DEVELOPMENT PROJECT

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

Month:	January
Year	2020
Type of Material	Sub grade

Location:-N-7

Sn.	Lab.Ref no.	Location/Chainage	Source of Sample	Date of Testing	MDD	OMC	PI%	CBR%	Remarks
1	RUDP-SG-01	N-7,(0+100)	Existing Road	18-Jan-20	2.025	7.50	4.70	5.50	

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

Location:-N-7

Month	January
Year	2020
Type of Material	Sub-Grade

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, R/S	18-Jan-20	0+020	7.50	7.35	2.025	1.949	96.25	95
2	RUDP-SG-FD-1, R/S	18-Jan-20	0+050	7.50	7.20	2.025	1.964	97.00	95
3	RUDP-SG-FD-1, C/L	18-Jan-20	0+080	7.50	7.09	2.025	1.947	96.17	95
4	RUDP-SG-FD-1, L/S	18-Jan-20	0+110	7.50	7.11	2.025	1.947	96.13	95

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
 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 Mortar Test Report

Page no. 1 of 1

Month **January**

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	R-46	MR-2368	Ambe Hi-tech	
2	R-39	MR-2369	Ambe Hi-tech	OPC	Chisang Khola	4-Dec-19	11-Dec-19	1-Jan-20	8.23	7.5	
3	R-39	MR-2370	Ambe Hi-tech	OPC	Chisang Khola	4-Dec-19	11-Dec-19	1-Jan-20	8.90	7.5	
4	T3L25A	MR-2371	Ambe Hi-tech	OPC	Chisang Khola	5-Dec-19	12-Dec-19	2-Jan-20	9.17	7.5	
5	T3L25A	MR-2372	Ambe Hi-tech	OPC	Chisang Khola	5-Dec-19	12-Dec-19	2-Jan-20	9.44	7.5	
6	T3L25A	MR-2373	Ambe Hi-tech	OPC	Chisang Khola	5-Dec-19	12-Dec-19	2-Jan-20	8.63	7.5	
7	R-12	MR-2374	Ambe Hi-tech	OPC	Chisang Khola	6-Dec-19	13-Dec-19	3-Jan-20	9.30	7.5	
8	T3L10A	MR-2375	Ambe Hi-tech	OPC	Chisang Khola	6-Dec-19	13-Dec-19	3-Jan-20	8.76	7.5	
9	R-2	MR-2376	Ambe Hi-tech	OPC	Chisang Khola	6-Dec-19	13-Dec-19	3-Jan-20	9.57	7.5	
10	R-39	MR-2377	Ambe Hi-tech	OPC	Chisang Khola	6-Dec-19	13-Dec-19	3-Jan-20	8.09	7.5	
11	T3L24B	MR-2378	Ambe Hi-tech	OPC	Chisang Khola	7-Dec-19	14-Dec-19	4-Jan-20	9.04	7.5	
12	T3L7B	MR-2379	Ambe Hi-tech	OPC	Chisang Khola	7-Dec-19	14-Dec-19	4-Jan-20	9.98	7.5	
13	T3L25A	MR-2380	Ambe Hi-tech	OPC	Chisang Khola	8-Dec-19	15-Dec-19	5-Jan-20	9.44	7.5	
14	R-12	MR-2381	Ambe Hi-tech	OPC	Chisang Khola	8-Dec-19	15-Dec-19	5-Jan-20	8.77	7.5	
15	R-44	MR-2382	Ambe Hi-tech	OPC	Chisang Khola	8-Dec-19	15-Dec-19	5-Jan-20	8.50	7.5	
16	R-39	MR-2383	Ambe Hi-tech	OPC	Chisang Khola	8-Dec-19	15-Dec-19	5-Jan-20	8.63	7.5	
17	T3L7A	MR-2384	Ambe Hi-tech	OPC	Chisang Khola	9-Dec-19	16-Dec-19	6-Jan-20	9.04	7.5	
18	R-26	MR-2385	Ambe Hi-tech	OPC	Chisang Khola	9-Dec-19	16-Dec-19	6-Jan-20	9.44	7.5	
19	T3L24B	MR-2386	Ambe Hi-tech	OPC	Chisang Khola	10-Dec-19	17-Dec-19	7-Jan-20	8.77	7.5	
20	R-2	MR-2387	Ambe Hi-tech	OPC	Chisang Khola	10-Dec-19	17-Dec-19	7-Jan-20	8.92	7.5	
21	R-39	MR-2388	Ambe Hi-tech	OPC	Chisang Khola	11-Dec-19	18-Dec-19	8-Jan-20	8.63	7.5	
22	T1L7A	MR-2389	Ambe Hi-tech	OPC	Chisang Khola	11-Dec-19	18-Dec-19	8-Jan-20	8.90	7.5	
23	R-26	MR-2390	Ambe Hi-tech	OPC	Chisang Khola	11-Dec-19	18-Dec-19	8-Jan-20	9.04	7.5	
24	R-2	MR-2391	Ambe Hi-tech	OPC	Chisang Khola	11-Dec-19	18-Dec-19	8-Jan-20	8.77	7.5	
25	R-39	MR-2392	Ambe Hi-tech	OPC	Chisang Khola	12-Dec-19	19-Dec-19	9-Jan-20	8.36	7.5	
26	T3L25A	MR-2393	Ambe Hi-tech	OPC	Chisang Khola	13-Dec-19	20-Dec-19	10-Jan-20	9.04	7.5	
27	R-12	MR-2394	Ambe Hi-tech	OPC	Chisang Khola	13-Dec-19	20-Dec-19	10-Jan-20	9.57	7.5	
28	R-26	MR-2395	Ambe Hi-tech	OPC	Chisang Khola	13-Dec-19	20-Dec-19	10-Jan-20	8.90	7.5	
29	R-44	MR-2396	Ambe Hi-tech	OPC	Chisang Khola	13-Dec-19	20-Dec-19	10-Jan-20	8.36	7.5	
30	R-39	MR-2397	Ambe Hi-tech	OPC	Chisang Khola	14-Dec-19	21-Dec-19	11-Jan-20	8.50	7.5	



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,



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 2

Month **January**

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	
							31	T3L10A	MR-2398	Ambe Hi-tech	
32	T3L10A	MR-2399	Ambe Hi-tech	OPC	Chisang Khola	14-Dec-19	21-Dec-19	11-Jan-20	8.36	7.5	
33	T1L7B	MR-2400	Ambe Hi-tech	OPC	Chisang Khola	14-Dec-19	21-Dec-19	11-Jan-20	8.63	7.5	
34	R-2	MR-2401	Ambe Hi-tech	OPC	Chisang Khola	14-Dec-19	21-Dec-19	11-Jan-20	8.90	7.5	
35	R-44	MR-2402	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20	9.30	7.5	
36	R-26	MR-2403	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20	9.04	7.5	
37	T3L10A	MR-2404	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20	8.50	7.5	
38	R-2	MR-2405	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20	9.04	7.5	
39	T3L24B	MR-2406	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20	8.90	7.5	
40	T3L24A	MR-2407	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20	8.09	7.5	
41	R-26	MR-2408	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20	8.50	7.5	
42	R-39	MR-2409	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20	9.71	7.5	
43	T3L10A	MR-2410	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20	8.77	7.5	
44	T1L7A	MR-2411	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20	9.30	7.5	
45	T1L7B	MR-2412	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20	8.77	7.5	
46	T3L25A	MR-2413	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20	9.57	7.5	
47	T3L10A	MR-2414	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20	9.30	7.5	
48	R-12	MR-2415	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20	8.36	7.5	
49	R-26	MR-2416	Ambe Hi-tech	OPC	Chisang Khola	17-Dec-19	24-Dec-19	14-Jan-20	8.90	7.5	
50	R-44	MR-2417	Ambe Hi-tech	OPC	Chisang Khola	17-Dec-19	24-Dec-19	14-Jan-20	9.17	7.5	
51	R-39	MR-2418	Ambe Hi-tech	OPC	Chisang Khola	17-Dec-19	24-Dec-19	14-Jan-20	9.04	7.5	
52	R-2	MR-2419	Ambe Hi-tech	OPC	Chisang Khola	17-Dec-19	24-Dec-19	14-Jan-20	8.50	7.5	
53	R-39	MR-2420	Ambe Hi-tech	OPC	Chisang Khola	18-Dec-19	25-Dec-19	15-Jan-20	9.57	7.5	
54	T3L24B	MR-2421	Ambe Hi-tech	OPC	Chisang Khola	18-Dec-19	25-Dec-19	15-Jan-20	8.90	7.5	
55	T3L10A	MR-2422	Ambe Hi-tech	OPC	Chisang Khola	18-Dec-19	25-Dec-19	15-Jan-20	8.77	7.5	
56	T3L7A	MR-2423	Ambe Hi-tech	OPC	Chisang Khola	19-Dec-19	26-Dec-19	16-Jan-20	9.57	7.5	
57	T3L7B	MR-2424	Ambe Hi-tech	OPC	Chisang Khola	19-Dec-19	26-Dec-19	16-Jan-20	8.63	7.5	
58	R-26	MR-2425	Ambe Hi-tech	OPC	Chisang Khola	19-Dec-19	26-Dec-19	16-Jan-20	9.84	7.5	
59	R-46	MR-2426	Ambe Hi-tech	OPC	Chisang Khola	20-Dec-19	27-Dec-19	17-Jan-20	8.77	7.5	
60	R-39	MR-2427	Ambe Hi-tech	OPC	Chisang Khola	20-Dec-19	27-Dec-19	17-Jan-20	8.36	7.5	
61	T3L10A	MR-2428	Ambe Hi-tech	OPC	Chisang Khola	20-Dec-19	27-Dec-19	17-Jan-20	9.17	7.5	
62	R-12	MR-2429	Ambe Hi-tech	OPC	Chisang Khola	20-Dec-19	27-Dec-19	17-Jan-20	9.30	7.5	

 <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 Giresch 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 3				
							Month		January		
							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	
63	R-39	MR-2430	Ambe Hi-tech	OPC	Chisang Khola	20-Dec-19	27-Dec-19	17-Jan-20		8.36	7.5
64	R-2	MR-2431	Ambe Hi-tech	OPC	Chisang Khola	20-Dec-19	27-Dec-19	17-Jan-20		8.77	7.5
65	R-26	MR-2432	Ambe Hi-tech	OPC	Chisang Khola	20-Dec-19	27-Dec-19	17-Jan-20		9.30	7.5
66	T3L25A	MR-2433	Ambe Hi-tech	OPC	Chisang Khola	20-Dec-19	27-Dec-19	17-Jan-20		9.84	7.5
67	R-44	MR-2434	Ambe Hi-tech	OPC	Chisang Khola	20-Dec-19	27-Dec-19	17-Jan-20		9.04	7.5
68	T3L10A	MR-2435	Ambe Hi-tech	OPC	Chisang Khola	20-Dec-19	27-Dec-19	17-Jan-20		9.17	7.5
69	T3L7C	MR-2436	Ambe Hi-tech	OPC	Chisang Khola	20-Dec-19	27-Dec-19	17-Jan-20		9.71	7.5
70	T3L7C	MR-2437	Ambe Hi-tech	OPC	Chisang Khola	20-Dec-19	27-Dec-19	17-Jan-20		9.17	7.5
71	T3L10A	MR-2438	Ambe Hi-tech	OPC	Chisang Khola	20-Dec-19	27-Dec-19	17-Jan-20		8.09	7.5
72	T3L10A	MR-2439	Ambe Hi-tech	OPC	Chisang Khola	21-Dec-19	28-Dec-19	18-Jan-20		9.57	7.5
73	R-2	MR-2440	Ambe Hi-tech	OPC	Chisang Khola	21-Dec-19	28-Dec-19	18-Jan-20		8.36	7.5
74	R-44	MR-2441	Ambe Hi-tech	OPC	Chisang Khola	21-Dec-19	28-Dec-19	18-Jan-20		8.63	7.5
75	R-44	MR-2442	Ambe Hi-tech	OPC	Chisang Khola	21-Dec-19	28-Dec-19	18-Jan-20		9.30	7.5
76	R-39	MR-2443	Ambe Hi-tech	OPC	Chisang Khola	21-Dec-19	28-Dec-19	18-Jan-20		8.50	7.5
77	T3L24B	MR-2444	Ambe Hi-tech	OPC	Chisang Khola	21-Dec-19	28-Dec-19	18-Jan-20		9.57	7.5
78	R-26	MR-2445	Ambe Hi-tech	OPC	Chisang Khola	22-Dec-19	29-Dec-19	19-Jan-20		9.71	7.5
79	R-39	MR-2446	Ambe Hi-tech	OPC	Chisang Khola	22-Dec-19	29-Dec-19	19-Jan-20		8.23	7.5
80	T3L24B	MR-2447	Ambe Hi-tech	OPC	Chisang Khola	22-Dec-19	29-Dec-19	19-Jan-20		8.63	7.5
81	R-44	MR-2448	Ambe Hi-tech	OPC	Chisang Khola	22-Dec-19	29-Dec-19	19-Jan-20		9.57	7.5
82	R-12	MR-2449	Ambe Hi-tech	OPC	Chisang Khola	23-Dec-19	30-Dec-19	20-Jan-20		9.04	7.5
83	T1L7A	MR-2450	Ambe Hi-tech	OPC	Chisang Khola	23-Dec-19	30-Dec-19	20-Jan-20		8.36	7.5
84	R-2	MR-2451	Ambe Hi-tech	OPC	Chisang Khola	23-Dec-19	30-Dec-19	20-Jan-20		9.71	7.5
85	T1L7B	MR-2452	Ambe Hi-tech	OPC	Chisang Khola	23-Dec-19	30-Dec-19	20-Jan-20		8.50	7.5
86	R-39	MR-2453	Ambe Hi-tech	OPC	Chisang Khola	23-Dec-19	30-Dec-19	20-Jan-20		9.30	7.5
87	T3L24B	MR-2454	Ambe Hi-tech	OPC	Chisang Khola	23-Dec-19	30-Dec-19	20-Jan-20		8.09	7.5
88	T3L24B	MR-2455	Ambe Hi-tech	OPC	Chisang Khola	24-Dec-19	31-Dec-19	21-Jan-20		9.30	7.5
89	R-12	MR-2456	Ambe Hi-tech	OPC	Chisang Khola	24-Dec-19	31-Dec-19	21-Jan-20		8.90	7.5
90	R-12	MR-2457	Ambe Hi-tech	OPC	Chisang Khola	24-Dec-19	31-Dec-19	21-Jan-20		9.98	7.5
91	R-2	MR-2458	Ambe Hi-tech	OPC	Chisang Khola	25-Dec-19	1-Jan-20	22-Jan-20	6.71	8.77	7.5
92	R-26	MR-2459	Ambe Hi-tech	OPC	Chisang Khola	25-Dec-19	1-Jan-20	22-Jan-20	6.47	8.36	7.5
93	T1L7B	MR-2460	Ambe Hi-tech	OPC	Chisang Khola	25-Dec-19	1-Jan-20	22-Jan-20	6.61	8.63	7.5
94	N-8	MR-2461	Ambe Hi-tech	OPC	Chisang Khola	25-Dec-19	1-Jan-20	22-Jan-20	7.28	8.50	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 4

Month **January**

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	
							95	T1L7B	MR-2462	Ambe Hi-tech	
96	N-7	MR-2463	Ambe Hi-tech	OPC	Chisang Khola	26-Dec-19	2-Jan-20	23-Jan-20	6.07	9.30	7.5
97	R-5	MR-2464	Ambe Hi-tech	OPC	Chisang Khola	26-Dec-19	2-Jan-20	23-Jan-20	7.01	8.36	7.5
98	R-46	MR-2465	Ambe Hi-tech	OPC	Chisang Khola	26-Dec-19	2-Jan-20	23-Jan-20	6.34	9.04	7.5
99	T3L10A	MR-2466	Ambe Hi-tech	OPC	Chisang Khola	26-Dec-19	2-Jan-20	23-Jan-20	6.47	8.90	7.5
100	T3L25A	MR-2467	Ambe Hi-tech	OPC	Chisang Khola	28-Dec-19	4-Jan-20	25-Jan-20	7.01	8.50	7.5
101	R-16	MR-2468	Ambe Hi-tech	OPC	Chisang Khola	28-Dec-19	4-Jan-20	25-Jan-20	6.88	8.36	7.5
102	N-31	MR-2469	Ambe Hi-tech	OPC	Chisang Khola	28-Dec-19	4-Jan-20	25-Jan-20	7.28	8.90	7.5
103	T1L8B	MR-2470	Ambe Hi-tech	OPC	Chisang Khola	28-Dec-19	4-Jan-20	25-Jan-20	6.34	8.50	7.5
104	R-12	MR-2471	Ambe Hi-tech	OPC	Chisang Khola	28-Dec-19	4-Jan-20	25-Jan-20	6.47	8.90	7.5
105	N-3	MR-2472	Ambe Hi-tech	OPC	Chisang Khola	28-Dec-19	4-Jan-20	25-Jan-20	6.88	8.63	7.5
106	T2L24	MR-2473	Ambe Hi-tech	OPC	Chisang Khola	28-Dec-19	4-Jan-20	25-Jan-20	6.20	7.82	7.5
107	R-2	MR-2474	Ambe Hi-tech	OPC	Chisang Khola	29-Dec-19	5-Jan-20	26-Jan-20	6.20	8.50	7.5
108	R-26	MR-2475	Ambe Hi-tech	OPC	Chisang Khola	29-Dec-19	5-Jan-20	26-Jan-20	6.88	9.71	7.5
109	T1L7B	MR-2476	Ambe Hi-tech	OPC	Chisang Khola	29-Dec-19	5-Jan-20	26-Jan-20	6.88	9.04	7.5
110	N-7	MR-2477	Ambe Hi-tech	OPC	Chisang Khola	30-Dec-19	6-Jan-20	27-Jan-20	6.34	8.23	7.5
111	R-5	MR-2478	Ambe Hi-tech	OPC	Chisang Khola	30-Dec-19	6-Jan-20	27-Jan-20	6.34	8.63	7.5
112	R-46	MR-2479	Ambe Hi-tech	OPC	Chisang Khola	30-Dec-19	6-Jan-20	27-Jan-20	6.47	8.77	7.5
113	T3L10A	MR-2480	Ambe Hi-tech	OPC	Chisang Khola	31-Dec-19	7-Jan-20	28-Jan-20	7.15	9.30	7.5
114	R-16	MR-2481	Ambe Hi-tech	OPC	Chisang Khola	31-Dec-19	7-Jan-20	28-Jan-20	6.61	8.36	7.5
115	N-3	MR-2482	Ambe Hi-tech	OPC	Chisang Khola	31-Dec-19	7-Jan-20	28-Jan-20	6.47	8.23	7.5
116	T1L8B	MR-2483	Ambe Hi-tech	OPC	Chisang Khola	31-Dec-19	7-Jan-20	28-Jan-20	6.34	8.36	7.5
117	N-31	MR-2484	Ambe Hi-tech	OPC	Chisang Khola	1-Jan-20	8-Jan-20	29-Jan-20	6.88	8.36	7.5
118	T2L24	MR-2485	Ambe Hi-tech	OPC	Chisang Khola	1-Jan-20	8-Jan-20	29-Jan-20	6.07	8.36	7.5
119	R-12	MR-2486	Ambe Hi-tech	OPC	Chisang Khola	1-Jan-20	8-Jan-20	29-Jan-20	7.01	9.57	7.5
120	R-46	MR-2487	Ambe Hi-tech	OPC	Chisang Khola	1-Jan-20	8-Jan-20	29-Jan-20	6.88	9.30	7.5
121	T1L7A	MR-2488	Ambe Hi-tech	OPC	Chisang Khola	2-Jan-20	9-Jan-20	30-Jan-20	6.20	8.90	7.5
122	N-8	MR-2489	Ambe Hi-tech	OPC	Chisang Khola	2-Jan-20	9-Jan-20	30-Jan-20	6.47	8.36	7.5
123	R-26	MR-2490	Ambe Hi-tech	OPC	Chisang Khola	2-Jan-20	9-Jan-20	30-Jan-20	6.74	9.71	7.5
124	N-31	MR-2491	Ambe Hi-tech	OPC	Chisang Khola	2-Jan-20	9-Jan-20	30-Jan-20	7.01	9.71	7.5
125	T3L10A	MR-2492	Ambe Hi-tech	OPC	Chisang Khola	3-Jan-20	10-Jan-20	31-Jan-20	6.88	9.44	7.5
126	R-5	MR-2493	Ambe Hi-tech	OPC	Chisang Khola	3-Jan-20	10-Jan-20	31-Jan-20	7.28	8.50	7.5

<p>Contractor</p> <p>ZHONG HENG 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,</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 Mortar Test Report


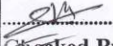

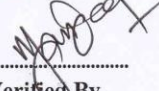

Page no. 1 of 5

Month **January**

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	
							127	T1L8B	MR-2494	Ambe Hi-tech	
128	R-26	MR-2495	Ambe Hi-tech	OPC	Chisang Khola	3-Jan-20	10-Jan-20	31-Jan-20	6.61	8.63	7.5
129	N-3	MR-2496	Ambe Hi-tech	OPC	Chisang Khola	3-Jan-20	10-Jan-20	31-Jan-20	6.88	7.82	7.5
130	T3L25A	MR-2497	Ambe Hi-tech	OPC	Chisang Khola	4-Jan-20	11-Jan-20	1-Feb-20	7.01		7.5
131	R-26	MR-2498	Ambe Hi-tech	OPC	Chisang Khola	4-Jan-20	11-Jan-20	1-Feb-20	7.28		7.5
132	R-5	MR-2499	Ambe Hi-tech	OPC	Chisang Khola	4-Jan-20	11-Jan-20	1-Feb-20	6.20		7.5
133	N-8	MR-2500	Ambe Hi-tech	OPC	Chisang Khola	4-Jan-20	11-Jan-20	1-Feb-20	7.15		7.5
134	N-7	MR-2501	Ambe Hi-tech	OPC	Chisang Khola	5-Jan-20	12-Jan-20	2-Feb-20	6.07		7.5
135	R-12	MR-2502	Ambe Hi-tech	OPC	Chisang Khola	5-Jan-20	12-Jan-20	2-Feb-20	6.74		7.5
136	N-32	MR-2503	Ambe Hi-tech	OPC	Chisang Khola	5-Jan-20	12-Jan-20	2-Feb-20	7.28		7.5
137	T3L10A	MR-2504	Ambe Hi-tech	OPC	Chisang Khola	5-Jan-20	12-Jan-20	2-Feb-20	6.74		7.5
138	R-26	MR-2505	Ambe Hi-tech	OPC	Chisang Khola	6-Jan-20	13-Jan-20	3-Feb-20	6.61		7.5
139	R-16	MR-2506	Ambe Hi-tech	OPC	Chisang Khola	6-Jan-20	13-Jan-20	3-Feb-20	6.07		7.5
140	N-31	MR-2507	Ambe Hi-tech	OPC	Chisang Khola	6-Jan-20	13-Jan-20	3-Feb-20	6.34		7.5
141	T1L7A	MR-2508	Ambe Hi-tech	OPC	Chisang Khola	6-Jan-20	13-Jan-20	3-Feb-20	6.74		7.5
142	N-8	MR-2509	Ambe Hi-tech	OPC	Chisang Khola	6-Jan-20	13-Jan-20	3-Feb-20	6.88		7.5
143	R-46	MR-2510	Ambe Hi-tech	OPC	Chisang Khola	7-Jan-20	14-Jan-20	4-Feb-20	7.28		7.5
144	T3L25A	MR-2511	Ambe Hi-tech	OPC	Chisang Khola	7-Jan-20	14-Jan-20	4-Feb-20	6.74		7.5
145	T2L24	MR-2512	Ambe Hi-tech	OPC	Chisang Khola	7-Jan-20	14-Jan-20	4-Feb-20	6.47		7.5
146	N-7	MR-2513	Ambe Hi-tech	OPC	Chisang Khola	7-Jan-20	14-Jan-20	4-Feb-20	6.20		7.5
147	R-12	MR-2514	Ambe Hi-tech	OPC	Chisang Khola	7-Jan-20	14-Jan-20	4-Feb-20	5.93		7.5
148	T1L7B	MR-2515	Ambe Hi-tech	OPC	Chisang Khola	8-Jan-20	15-Jan-20	5-Feb-20	7.15		7.5
149	R-46	MR-2516	Ambe Hi-tech	OPC	Chisang Khola	8-Jan-20	15-Jan-20	5-Feb-20	6.74		7.5
150	T3L25A	MR-2517	Ambe Hi-tech	OPC	Chisang Khola	8-Jan-20	15-Jan-20	5-Feb-20	6.88		7.5
151	T1L8B	MR-2518	Ambe Hi-tech	OPC	Chisang Khola	8-Jan-20	15-Jan-20	5-Feb-20	6.34		7.5
152	N-31	MR-2519	Ambe Hi-tech	OPC	Chisang Khola	8-Jan-20	15-Jan-20	5-Feb-20	6.20		7.5
153	T1L7A	MR-2520	Ambe Hi-tech	OPC	Chisang Khola	8-Jan-20	15-Jan-20	5-Feb-20	7.15		7.5
154	R-5	MR-2521	Ambe Hi-tech	OPC	Chisang Khola	9-Jan-20	16-Jan-20	6-Feb-20	6.34		7.5
155	R-16	MR-2522	Ambe Hi-tech	OPC	Chisang Khola	9-Jan-20	16-Jan-20	6-Feb-20	6.20		7.5
156	N-31	MR-2523	Ambe Hi-tech	OPC	Chisang Khola	9-Jan-20	16-Jan-20	6-Feb-20	6.88		7.5
157	N-3	MR-2524	Ambe Hi-tech	OPC	Chisang Khola	9-Jan-20	16-Jan-20	6-Feb-20	6.07		7.5
158	T1L7A	MR-2525	Ambe Hi-tech	OPC	Chisang Khola	9-Jan-20	16-Jan-20	6-Feb-20	7.01		7.5

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,</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 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 **January**

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	
							159	T1L7B	MR-2526	Ambe Hi-tech	
160	R-5	MR-2527	Ambe Hi-tech	OPC	Chisang Khola	10-Jan-20	17-Jan-20	7-Feb-20	6.47		7.5
161	R-16	MR-2528	Ambe Hi-tech	OPC	Chisang Khola	10-Jan-20	17-Jan-20	7-Feb-20	7.01		7.5
162	N-3	MR-2529	Ambe Hi-tech	OPC	Chisang Khola	10-Jan-20	17-Jan-20	7-Feb-20	6.20		7.5
163	T1L7A	MR-2530	Ambe Hi-tech	OPC	Chisang Khola	10-Jan-20	17-Jan-20	7-Feb-20	6.88		7.5
164	R-26	MR-2531	Ambe Hi-tech	OPC	Chisang Khola	11-Jan-20	18-Jan-20	8-Feb-20	6.88		7.5
165	N-8	MR-2532	Ambe Hi-tech	OPC	Chisang Khola	11-Jan-20	18-Jan-20	8-Feb-20	6.20		7.5
166	T1L7B	MR-2533	Ambe Hi-tech	OPC	Chisang Khola	11-Jan-20	18-Jan-20	8-Feb-20	6.34		7.5
167	N-7	MR-2534	Ambe Hi-tech	OPC	Chisang Khola	11-Jan-20	18-Jan-20	8-Feb-20	5.93		7.5
168	R-5	MR-2535	Ambe Hi-tech	OPC	Chisang Khola	11-Jan-20	18-Jan-20	8-Feb-20	5.80		7.5
169	R-46	MR-2536	Ambe Hi-tech	OPC	Chisang Khola	12-Jan-20	19-Jan-20	9-Feb-20	6.20		7.5
170	T3L10A	MR-2537	Ambe Hi-tech	OPC	Chisang Khola	12-Jan-20	19-Jan-20	9-Feb-20	6.47		7.5
171	T3L25A	MR-2538	Ambe Hi-tech	OPC	Chisang Khola	12-Jan-20	19-Jan-20	9-Feb-20	7.28		7.5
172	R-16	MR-2539	Ambe Hi-tech	OPC	Chisang Khola	12-Jan-20	19-Jan-20	9-Feb-20	6.88		7.5
173	N-31	MR-2540	Ambe Hi-tech	OPC	Chisang Khola	12-Jan-20	19-Jan-20	9-Feb-20	6.61		7.5
174	T1L8B	MR-2541	Ambe Hi-tech	OPC	Chisang Khola	12-Jan-20	19-Jan-20	9-Feb-20	6.88		7.5
175	R-12	MR-2542	Ambe Hi-tech	OPC	Chisang Khola	13-Jan-20	20-Jan-20	10-Feb-20	6.74		7.5
176	N-3	MR-2543	Ambe Hi-tech	OPC	Chisang Khola	13-Jan-20	20-Jan-20	10-Feb-20	6.47		7.5
177	T2L24	MR-2544	Ambe Hi-tech	OPC	Chisang Khola	13-Jan-20	20-Jan-20	10-Feb-20	6.61		7.5
178	N-32	MR-2545	Ambe Hi-tech	OPC	Chisang Khola	13-Jan-20	20-Jan-20	10-Feb-20	6.07		7.5
179	T1L7A	MR-2546	Ambe Hi-tech	OPC	Chisang Khola	14-Jan-20	21-Jan-20	11-Feb-20	6.74		7.5
180	R-26	MR-2547	Ambe Hi-tech	OPC	Chisang Khola	14-Jan-20	21-Jan-20	11-Feb-20	7.01		7.5
181	N-8	MR-2548	Ambe Hi-tech	OPC	Chisang Khola	14-Jan-20	21-Jan-20	11-Feb-20	6.47		7.5
182	T1L7B	MR-2549	Ambe Hi-tech	OPC	Chisang Khola	15-Jan-20	22-Jan-20	12-Feb-20	6.34		7.5
183	N-7	MR-2550	Ambe Hi-tech	OPC	Chisang Khola	15-Jan-20	22-Jan-20	12-Feb-20	7.28		7.5
184	R-46	MR-2551	Ambe Hi-tech	OPC	Chisang Khola	15-Jan-20	22-Jan-20	12-Feb-20	6.47		7.5
185	T1L10A	MR-2552	Ambe Hi-tech	OPC	Chisang Khola	16-Jan-20	23-Jan-20	13-Feb-20	6.20		7.5
186	R-5	MR-2553	Ambe Hi-tech	OPC	Chisang Khola	16-Jan-20	23-Jan-20	13-Feb-20	7.28		7.5
187	R-16	MR-2554	Ambe Hi-tech	OPC	Chisang Khola	16-Jan-20	23-Jan-20	13-Feb-20	6.88		7.5
188	N-3	MR-2555	Ambe Hi-tech	OPC	Chisang Khola	16-Jan-20	23-Jan-20	13-Feb-20	6.74		7.5
189	R-12	MR-2556	Ambe Hi-tech	OPC	Chisang Khola	18-Jan-20	25-Jan-20	15-Feb-20	6.07		7.5
190	R-12	MR-2557	Ambe Hi-tech	OPC	Chisang Khola	18-Jan-20	25-Jan-20	15-Feb-20	7.01		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, 	
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 7

Month January

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	
							191	T2L24	MR-2558	Ambe Hi-tech	
192	N-32	MR-2559	Ambe Hi-tech	OPC	Chisang Khola	18-Jan-20	25-Jan-20	15-Feb-20	7.15	7.5	
193	T3L25A	MR-2560	Ambe Hi-tech	OPC	Chisang Khola	19-Jan-20	26-Jan-20	16-Feb-20	6.61	7.5	
194	R-2	MR-2561	Ambe Hi-tech	OPC	Chisang Khola	19-Jan-20	26-Jan-20	16-Feb-20	6.47	7.5	
195	T3L Trunk line	MR-2562	Ambe Hi-tech	OPC	Chisang Khola	19-Jan-20	26-Jan-20	16-Feb-20	6.74	7.5	
196	R-2	MR-2563	Ambe Hi-tech	OPC	Chisang Khola	20-Jan-20	27-Jan-20	17-Feb-20	7.28	7.5	
197	R-12	MR-2564	Ambe Hi-tech	OPC	Chisang Khola	20-Jan-20	27-Jan-20	17-Feb-20	6.61	7.5	
198	T3L Trunk line	MR-2565	Ambe Hi-tech	OPC	Chisang Khola	20-Jan-20	27-Jan-20	17-Feb-20	6.20	7.5	
199	T1L7A	MR-2566	Ambe Hi-tech	OPC	Chisang Khola	21-Jan-20	28-Jan-20	18-Feb-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
 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 Monthly Test Report

S.N.	Lab Ref.No.	Testing Date	Location of Sample	Source of Brick	Name of Brick	Water Absorption of Brick(%)	Month	January
							Year	2020
							Type of Material	Brick
Strength of Brick(N/mm ²)	Remarks							
1	954	1-Jan-20	R-2	Dadarbairya	Aanand	16.24	15.22	
2	955	1-Jan-20	T1L7A	Dadarbairya	Aanand	13.02	15.17	
3	956	1-Jan-20	R-26	Dadarbairya	Aanand	14.10	14.38	
4	957	1-Jan-20	N-7	Dadarbairya	Aanand	15.92	14.68	
5	958	1-Jan-20	T1L7B	Dadarbairya	Aanand	14.16	13.94	
6	959	1-Jan-20	N-31	Dadarbairya	ACC	14.65	16.18	
7	960	2-Jan-20	R-5	Dadarbairya	ACC	13.99	14.66	
8	961	2-Jan-20	R-46	Dadarbairya	ACC	13.34	16.30	
9	962	2-Jan-20	T3L10A	Dadarbairya	Aanand	14.10	15.70	
10	963	2-Jan-20	T3L25A	Dadarbairya	Aanand	14.71	15.62	
11	964	2-Jan-20	R-16	Dadarbairya	ACC	13.61	15.21	
12	965	2-Jan-20	N-31	Dadarbairya	Aanand	13.52	15.95	
13	966	3-Jan-20	T1L8B	Dadarbairya	Aanand	14.27	15.63	
14	967	3-Jan-20	R-12	Dadarbairya	Aanand	14.14	15.60	
15	968	3-Jan-20	N-3	Dadarbairya	ACC	17.60	15.85	
16	969	3-Jan-20	T2L24	Dadarbairya	ACC	12.27	14.48	
17	970	3-Jan-20	N-7	Dadarbairya	ACC	14.63	14.64	
18	971	4-Jan-20	N-7	Dadarbairya	ACC	16.16	14.29	
19	972	4-Jan-20	T1L7B	Dadarbairya	Aanand	14.43	16.40	
20	973	4-Jan-20	R-16	Dadarbairya	Aanand	14.42	15.24	
21	974	4-Jan-20	R-26	Dadarbairya	Aanand	16.57	15.24	
22	975	4-Jan-20	N-31	Dadarbairya	Aanand	12.96	14.49	
23	976	4-Jan-20	R-46	Dadarbairya	Aanand	13.48	14.44	
24	977	4-Jan-20	T1L7A	Dadarbairya	Aanand	12.96	13.85	
25	978	4-Jan-20	T3L25A	Dadarbairya	Aanand	15.16	14.56	
26	979	4-Jan-20	T3L10A	Dadarbairya	ACC	12.76	13.29	
27	980	5-Jan-20	T1L8B	Dadarbairya	ACC	13.80	13.67	
28	981	5-Jan-20	T2L24	Dadarbairya	ACC	14.56	12.86	
29	982	5-Jan-20	N-3	Dadarbairya	Aanand	14.52	14.41	
30	983	5-Jan-20	R-2	Dadarbairya	Aanand	14.81	12.32	
31	984	5-Jan-20	T1L7B	Dadarbairya	ACC	13.11	14.12	
32	985	6-Jan-20	N-8	Dadarbairya	ACC	13.50	14.93	
33	986	6-Jan-20	R-5	Dadarbairya	Aanand	15.66	13.80	
Sp. Limit						<20%	>8 to 10 N/mm ²	

Comments:-

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


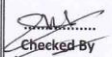



Biratnagar Metropolitan City
Contract No:- RUDP/ICB/BRT-02
Summary Sheet Of Monthly Test Report

S.N.	Lab Ref.No.	Testing Date	Location of Sample	Source of Brick	Name of Brick	Water Absorption of Brick(%)	Month		Remarks
							Year	January	
							Type of Material	Brick	
67	987	7-Jan-20	T1L8B	Dadarbairya	Anand	16.03		13.51	
68	988	7-Jan-20	T3L10A	Dadarbairya	ACC	14.74		13.13	
69	989	7-Jan-20	R-2	Dadarbairya	ACC	14.51		13.54	
70	990	7-Jan-20	T1L7B	Dadarbairya	Anand	15.85		16.83	
71	991	7-Jan-20	N-7	Dadarbairya	Anand	14.84		13.75	
72	992	8-Jan-20	T2L24	Dadarbairya	Anand	16.34		13.41	
73	993	8-Jan-20	R-12	Dadarbairya	ACC	14.67		14.06	
74	994	8-Jan-20	T1L7A	Dadarbairya	ACC	15.48		15.26	
75	995	8-Jan-20	T2L24	Dadarbairya	ACC	14.43		13.96	
76	996	8-Jan-20	R-12	Dadarbairya	ACC	13.63		12.90	
77	997	8-Jan-20	R-46	Dadarbairya	ACC	14.87		14.18	
78	998	8-Jan-20	R-2	Dadarbairya	ACC	14.08		13.63	
79	999	8-Jan-20	T1L8B	Dadarbairya	ACC	14.05		13.74	
80	1000	8-Jan-20	T3L10A	Dadarbairya	ACC	14.00		14.31	
81	1001	9-Jan-20	T3L25A	Dadarbairya	ACC	13.53		14.46	
82	1002	9-Jan-20	T3L25A	Dadarbairya	ACC	13.93		15.54	
83	1003	9-Jan-20	T2L24	Dadarbairya	ACC	15.25		15.64	
84	1004	9-Jan-20	N-3	Dadarbairya	ACC	13.65		15.47	
85	1005	9-Jan-20	R-12	Dadarbairya	Anand	14.88		13.79	
86	1006	9-Jan-20	T1L7B	Dadarbairya	ACC	14.09		14.22	
87	1007	9-Jan-20	N-31	Dadarbairya	ACC	15.23		15.88	
88	1008	10-Jan-20	R-16	Dadarbairya	ACC	14.44		15.57	
89	1009	11-Jan-20	T3L25A	Dadarbairya	ACC	14.64		15.96	
90	1010	12-Jan-20	T3L10A	Dadarbairya	ACC	13.88		15.75	
91	1011	12-Jan-20	R-46	Dadarbairya	Anand	14.99		14.55	
92	1012	12-Jan-20	R-5	Dadarbairya	Anand	13.35		14.00	
93	1013	12-Jan-20	N-7	Dadarbairya	Anand	12.88		12.64	
94	1014	12-Jan-20	T1L7A	Dadarbairya	ACC	14.16		14.52	
95	1015	13-Jan-20	N-8	Dadarbairya	ACC	13.01		12.66	
96	1016	13-Jan-20	R-26	Dadarbairya	ACC	15.71		14.21	
97	1017	13-Jan-20	T1L7A	Dadarbairya	ACC	13.86		14.63	
98	1018	14-Jan-20	R-2	Dadarbairya	Anand	15.09		14.87	
99	1019	14-Jan-20	T3L10A	Dadarbairya	Anand	12.67		14.87	
Sp. Limit						<20%		>8 to 10 N/mm ²	

Comments:-

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



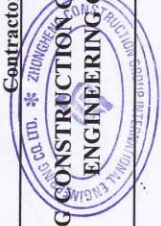

REGIONAL URBAN DEVELOPMENT PROJECT								Month	January
Biratnagar Metropolitan City								Year	2020
Contract No:- RUDP/ICB/BRT-02								Type of Material	Brick
Summary Sheet Of Monthly Test Report								Strength of Brick(N/mm ²)	Remarks
S.N.	Lab Ref.No.	Testing Date	Location of Sample	Source of Brick	Name of Brick	Water Absorption of Brick(%)	Strength of Brick(N/mm ²)	Remarks	
100	1020	14-Jan-20	T2L24	Dadarbairya	ACC	13.58	16.12		
101	1021	14-Jan-20	R-46	Dadarbairya	ACC	13.99	14.75		
102	1022	14-Jan-20	T1L7A	Dadarbairya	ACC	14.45	14.47		
103	1023	14-Jan-20	N-3	Dadarbairya	Anand	13.17	14.80		
104	1024	15-Jan-20	R-12	Dadarbairya	ACC	12.91	13.76		
105	1025	15-Jan-20	T1L8B	Dadarbairya	ACC	12.43	12.91		
106	1026	15-Jan-20	T3L25A	Dadarbairya	ACC	13.89	13.38		
107	1027	15-Jan-20	T3L10A	Dadarbairya	ACC	12.72	14.40		
108	1028	15-Jan-20	R-26	Dadarbairya	ACC	13.30	15.68		
109	1029	16-Jan-20	T2L24	Dadarbairya	Anand	13.74	14.18		
110	1030	16-Jan-20	N-31	Dadarbairya	Anand	12.44	16.13		
111	1031	16-Jan-20	R-26	Dadarbairya	ACC	14.48	14.87		
112	1032	16-Jan-20	R-2	Dadarbairya	ACC	13.91	14.47		
113	1033	17-Jan-20	T2L24	Dadarbairya	ACC	13.38	14.64		
114	1034	17-Jan-20	R-2	Dadarbairya	ACC	13.37	15.09		
115	1035	17-Jan-20	T1L7A	Dadarbairya	Anand	12.73	14.47		
116	1036	17-Jan-20	R-26	Dadarbairya	Anand	13.25	14.82		
117	1037	17-Jan-20	N-8	Dadarbairya	Anand	13.36	16.89		
118	1038	18-Jan-20	T1L7B	Dadarbairya	Anand	13.07	13.16		
119	1039	18-Jan-20	N-7	Dadarbairya	ACC	13.17	16.26		
120	1040	18-Jan-20	R-5	Dadarbairya	ACC	13.68	16.10		
121	1041	19-Jan-20	R-46	Dadarbairya	ACC	12.29	14.03		
122	1042	19-Jan-20	T3L10A	Dadarbairya	Anand	13.72	14.92		
123	1043	19-Jan-20	T3L25A	Dadarbairya	Anand	13.10	15.15		
124	1044	19-Jan-20	R-16	Dadarbairya	Anand	14.25	15.52		
125	1045	19-Jan-20	N-31	Dadarbairya	Anand	14.03	14.80		
126	1046	20-Jan-20	T1L8B	Dadarbairya	ACC	14.05	11.95		
127	1047	20-Jan-20	R-12	Dadarbairya	ACC	13.92	14.41		
128	1048	20-Jan-20	N-3	Dadarbairya	ACC	12.88	13.79		
129	1049	20-Jan-20	T2L24	Dadarbairya	ACC	12.07	13.46		
130	1050	21-Jan-20	T1L7A	Dadarbairya	Anand	13.93	15.22		
131	1051	21-Jan-20	R-5	Dadarbairya	Anand	14.29	14.85		
132	1052	22-Jan-20	T3L25A	Dadarbairya	Anand	12.42	15.08		
Sp. Limit							<20%	>8 to 10 N/mm ²	
Comments:-									
 <p>Contractor ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD.</p>					<p>Consultant BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND RUS 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 Giresh Chand		

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						L.A.A.%	Fl and El %	A.I.V.%	Remarks
					37.5	20	14	10	5	20 mm Agg				
1	RUDP-CA-497	2-Jan-20	R-2	Chisang Khola	100.00	87.34	22.42	4.66	1.53	27.10	18.36/14.37	21.11		
2	RUDP-CA-498	2-Jan-20	T1L7A	Chisang Khola	100.00	89.88	24.43	3.97	1.14	24.96	15.90/17.70	17.88		
3	RUDP-CA-499	3-Jan-20	R-26	Chisang Khola	100.00	88.33	39.70	12.69	1.89	29.00	17.27/20.21	19.97		
4	RUDP-CA-500	4-Jan-20	N-7	Chisang Khola	100.00	89.16	35.29	8.37	1.37	27.98	17.15/18.39	20.44		
5	RUDP-CA-501	4-Jan-20	R-5	Chisang Khola	100.00	88.42	31.21	7.09	1.25	29.58	16.57/17.35	20.97		
6	RUDP-CA-502	5-Jan-20	R-46	Chisang Khola	100.00	93.64	26.50	10.71	3.41	24.34	18.53/18.44	19.21		
7	RUDP-CA-503	6-Jan-20	T3L25A	Chisang Khola	100.00	93.67	25.85	11.48	3.13	24.24	18.16/17.27	19.43		
8	RUDP-CA-504	8-Jan-20	T3L10A	Chisang Khola	100.00	94.32	28.27	14.63	2.25	23.10	21.00/17.54	20.66		
9	RUDP-CA-505	8-Jan-20	R-16	Chisang Khola	100.00	90.95	24.70	10.54	2.62	28.30	20.57/16.96	20.43		
10	RUDP-CA-506	8-Jan-20	N-31	Chisang Khola	100.00	89.86	26.53	11.63	3.63	26.84	18.90/18.32	16.67		
11	RUDP-CA-507	10-Jan-20	R-4	Chisang Khola	100.00	89.78	26.18	12.44	1.68	27.76	18.52/17.46	16.67		
12	RUDP-CA-508	11-Jan-20	R-105	Chisang Khola	100.00	89.67	18.37	4.07	1.88	27.70	18.38/15.85	19.80		
13	RUDP-CA-509	13-Jan-20	T1L8B	Chisang Khola	100.00	92.11	17.59	4.26	1.70	29.04	19.11/16.23	20.15		
14	RUDP-CA-510	14-Jan-20	R-82	Chisang Khola	100.00	88.11	20.55	4.19	2.02	27.70	18.96/17.53	21.08		
15	RUDP-CA-511	16-Jan-20	N-3	Chisang Khola	100.00	89.75	51.63	16.08	1.34	29.28	19.21/17.61	18.19		
16	RUDP-CA-512	16-Jan-20	R-84	Chisang Khola	100.00	90.23	22.03	3.30	1.68	26.04	17.80/17.03	21.08		
17	RUDP-CA-513	17-Jan-20	T2L24	Chisang Khola	100.00	95.34	25.27	3.61	1.84	30.18	18.87/17.49	21.86		
18	RUDP-CA-514	17-Jan-20	Koshi-Yard	Chisang Khola	100.00	95.50	26.68	5.73	1.87	28.60	17.81/17.37	20.42		
19	RUDP-CA-515	19-Jan-20	R-15	Chisang Khola	100.00	94.84	15.90	6.90	2.06	30.96	17.95/15.22	18.86		
Spec. Limit :					100	85-109	6-76	0-25	0-5	<35	<25	<25		

<p>Contractor</p>  <p>ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD</p>	<p>Submitted By Contract Manager Rabindra K. Thakur</p>
<p>Checked By Engineer Dhirendra Yadav</p>	<p>Verified By Expert Qty Surveyor/CSE H.K. Mandal/Rajjan Shrestha</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>Approved By Team Leader Giresch Chand</p>



REGIONAL URBAN DEVELOPMENT PROJECT

Biratanagar 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					L.A.A.%	Fl and El %	A.I.V. %	Remarks
					37.5	75	150	300	600				
					20	42.5	75	150	300				
20	RUDP-CA-516	21-Jan-20	R-3	Chisang Khola	100.00	95.13	16.49	6.90	2.18	30.04	19.08/17.84	22.88	
21	RUDP-CA-517	21-Jan-20	T3L39A	Chisang Khola	100.00	93.11	23.85	10.64	3.75	30.44	18.65/14.39	20.23	
22	RUDP-CA-518	21-Jan-20	Madhumara-Yard	Chisang Khola	100.00	93.70	22.96	9.71	3.02	30.02	21.00/17.19	19.07	
23	RUDP-CA-519	21-Jan-20	T3L10A	Chisang Khola	100.00	93.70	21.98	9.74	3.61	31.76	17.75/16.94	19.05	
24	RUDP-CA-520	22-Jan-20	R-4	Chisang Khola	100.00	94.39	27.31	10.00	3.57	30.70	18.23/16.91	21.72	
25	RUDP-CA-521	22-Jan-20	Madhumara-Yard	Chisang Khola	100.00	93.55	26.69	10.89	3.46	26.38	17.06/14.27	18.34	
26	RUDP-CA-522	23-Jan-20	T1L7B	Chisang Khola	100.00	97.54	29.21	4.73	2.07	27.74	20.85/17.11	20.32	
27	RUDP-CA-523	23-Jan-20	R-12	Chisang Khola	100.00	95.32	42.90	7.58	3.29	22.10	18.53/16.09	23.29	
28	RUDP-CA-524	25-Jan-20	T3L25A	Chisang Khola	100.00	93.92	37.77	5.51	2.54	24.98	17.50/19.01	21.70	
29	RUDP-CA-525	25-Jan-20	R-82	Chisang Khola	100.00	95.02	40.52	6.17	2.49	29.58	16.06/12.74	19.43	
30	RUDP-CA-526	28-Jan-20	R-46	Chisang Khola	100.00	95.78	46.46	5.62	2.55	28.10	20.48/19.27	17.60	

Month	January
Year	2020
Type of Material	20 mm Agg

Spec. Limit : 100 85-100 0-70 0-25 0-5 <35 <25 <25

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
 Dharendra Yadav

Submitted By
 Contract Manager
 Rabindra K. Thakur

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

Approved By
 Team Leader
 Gresh Chand

RUDP
 Building Design Authority (P) Ltd, Kathmandu, Nepal


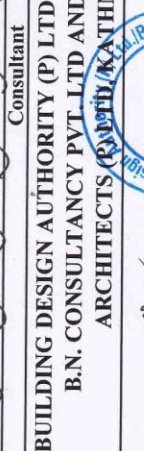


REGIONAL URBAN DEVELOPMENT PROJECT

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-573	2-Jan-20	R-4	Chisang Khola	100.00	95.41	70.82	46.50	36.78	18.76	3.01	1.65	
2	RUDP-CS-574	2-Jan-20	T1L7A	Chisang Khola	100.00	95.71	71.39	49.96	34.08	16.33	3.51	1.34	
3	RUDP-CS-575	3-Jan-20	T1L7B	Chisang Khola	100.00	91.08	81.20	36.29	30.10	10.71	4.88	1.02	
4	RUDP-CS-576	5-Jan-20	R-105	Chisang Khola	100.00	93.49	75.40	34.52	27.02	10.75	4.69	1.54	
5	RUDP-CS-577	5-Jan-20	N-7	Chisang Khola	100.00	93.19	78.66	37.21	28.98	13.82	6.23	1.02	
6	RUDP-CS-578	6-Jan-20	R-26	Chisang Khola	100.00	92.76	78.04	37.80	28.57	13.72	5.93	1.36	
7	RUDP-CS-579	6-Jan-20	R-2	Chisang Khola	100.00	93.62	67.80	42.14	34.94	18.25	6.90	1.31	
8	RUDP-CS-580	7-Jan-20	R-46	Chisang Khola	100.00	91.25	79.58	46.58	36.19	27.26	8.11	1.35	
9	RUDP-CS-581	7-Jan-20	T3L10A	Chisang Khola	100.00	92.60	68.36	52.50	39.46	29.46	7.26	1.51	
10	RUDP-CS-582	9-Jan-20	T3L25A	Chisang Khola	100.00	94.11	70.46	53.05	43.07	27.74	6.59	1.49	
11	RUDP-CS-583	10-Jan-20	R-3	Chisang Khola	100.00	93.99	73.20	50.38	31.54	19.85	7.14	1.18	
12	RUDP-CS-584	12-Jan-20	R-16	Chisang Khola	100.00	93.27	63.87	44.69	30.28	19.36	6.38	1.17	
13	RUDP-CS-585	12-Jan-20	R-4	Chisang Khola	100.00	94.35	71.60	37.23	30.08	17.66	5.30	1.08	
14	RUDP-CS-586	13-Jan-20	R-15	Chisang Khola	100.00	94.27	73.88	39.67	32.55	20.18	7.88	1.75	
15	RUDP-CS-587	13-Jan-20	T1L7B	Chisang Khola	100.00	94.23	82.35	52.38	20.56	15.57	4.20	1.50	
16	RUDP-CS-588	13-Jan-20	R-12	Chisang Khola	100.00	94.56	80.40	53.19	23.49	17.60	5.27	1.29	
17	RUDP-CS-589	15-Jan-20	N-3	Chisang Khola	100.00	95.03	83.89	61.45	36.79	12.18	5.18	1.20	
18	RUDP-CS-590	15-Jan-20	T2L24	Chisang Khola	100.00	91.85	68.88	41.29	18.26	11.68	6.13	1.06	
19	RUDP-CS-591	15-Jan-20	Madhumara-Yard	Chisang Khola	100.00	91.32	61.72	39.40	25.76	14.32	5.02	1.42	
Spec. Limit :					100	89-100	60-100	30-100	15-100	5-70	0-15	<3%	

 <p>Contractor ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD</p>	 <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>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 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					
20	RUDP-CS-592	15-Jan-20	R-3	Chisang Khola	100.00	94.48	65.63	42.06	25.31	12.53	5.40	1.65				
21	RUDP-CS-593	17-Jan-20	Koshi-Yard	Chisang Khola	100.00	94.29	78.44	51.91	42.44	12.16	5.10	1.28				
22	RUDP-CS-594	17-Jan-20	T3L39A	Chisang Khola	100.00	92.93	79.81	60.65	44.28	17.17	7.71	1.41				
23	RUDP-CS-595	18-Jan-20	T1L7B	Chisang Khola	100.00	91.83	65.09	53.31	41.92	10.29	3.74	1.21				
24	RUDP-CS-596	21-Jan-20	R-2	Chisang Khola	100.00	93.35	66.22	52.30	31.53	18.73	9.27	1.44				
25	RUDP-CS-597	21-Jan-20	T3L25A	Chisang Khola	100.00	92.90	75.24	62.64	30.26	21.21	7.45	1.48				
26	RUDP-CS-598	22-Jan-20	T1L7A	Chisang Khola	100.00	90.35	65.77	55.19	36.18	25.60	6.96	1.14				
27	RUDP-CS-599	22-Jan-20	R-4	Chisang Khola	100.00	91.80	69.21	51.21	32.80	23.51	6.69	1.29				
28	RUDP-CS-600	24-Jan-20	Madhumara-Yard	Chisang Khola	100.00	91.61	75.58	67.19	44.41	19.33	6.00	1.52				
29	RUDP-CS-601	26-Jan-20	T2L24	Chisang Khola	100.00	95.00	77.49	54.92	32.07	11.45	5.24	1.34				
30	RUDP-CS-602	28-Jan-20	R-2	Chisang Khola	100.00	95.01	86.97	61.33	34.84	15.04	5.18	1.55				
31	RUDP-CS-603	28-Jan-20	R-4	Chisang Khola	100.00	94.99	86.42	60.66	42.57	23.54	4.84	0.95				
					Spec. Limit :	100	89-100	60-100	30-100	15-100	5-70	0-15	<3%			

ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO.LTD

Submitted By
Contract Manager
Rabindra K. Thakur

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
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 1

S.N.	Location	Lab Ref.no.	Type of Cement	Brand of Cement	Source of Sand+Agg.	Date of Casting	Date of Testing		Strength, N/mm2		Concrete Grade
							7 Days	28 Days	7 Days	28 Days	
							Month		Year		
									January	2020	
1	T2L24B	RUDP-2772	Ambe Hi-tech	OPC	Chisang Khola	4-Dec-19	11-Dec-19	1-Jan-20		22.80	M20
2	R-83	RUDP-2773	Ambe Hi-tech	OPC	Chisang Khola	4-Dec-19	11-Dec-19	1-Jan-20		23.03	M20
3	T1L7A	RUDP-2774	Ambe Hi-tech	OPC	Chisang Khola	4-Dec-19	11-Dec-19	1-Jan-20		23.25	M20
4	T1L7B	RUDP-2775	Ambe Hi-tech	OPC	Chisang Khola	4-Dec-19	11-Dec-19	1-Jan-20		21.96	M20
5	Koshi-yard	RUDP-2776	Ambe Hi-tech	OPC	Chisang Khola	4-Dec-19	11-Dec-19	1-Jan-20		22.73	M15
6	R-39	RUDP-2777	Ambe Hi-tech	OPC	Chisang Khola	4-Dec-19	11-Dec-19	1-Jan-20		22.03	M20
7	R-44	RUDP-2778	Ambe Hi-tech	OPC	Chisang Khola	5-Dec-19	12-Dec-19	2-Jan-20		23.21	M20
8	R-9	RUDP-2779	Ambe Hi-tech	OPC	Chisang Khola	5-Dec-19	12-Dec-19	2-Jan-20		21.29	M20
9	Koshi-yard	RUDP-2780	Ambe Hi-tech	OPC	Chisang Khola	5-Dec-19	12-Dec-19	2-Jan-20		21.96	M20
10	T3L25A	RUDP-2781	Ambe Hi-tech	OPC	Chisang Khola	5-Dec-19	12-Dec-19	2-Jan-20		23.62	M20
11	T3L10A	RUDP-2782	Ambe Hi-tech	OPC	Chisang Khola	5-Dec-19	12-Dec-19	2-Jan-20		22.06	M20
12	R-12	RUDP-2783	Ambe Hi-tech	OPC	Chisang Khola	5-Dec-19	12-Dec-19	2-Jan-20		21.51	M20
13	R-44	RUDP-2784	Ambe Hi-tech	OPC	Chisang Khola	6-Dec-20	13-Dec-20	3-Jan-21		22.81	M20
14	Koshi-yard	RUDP-2785	Ambe Hi-tech	OPC	Chisang Khola	6-Dec-20	13-Dec-20	3-Jan-21		21.74	M20
15	T2L25D	RUDP-2786	Ambe Hi-tech	OPC	Chisang Khola	6-Dec-20	13-Dec-20	3-Jan-21		23.36	M20
16	N-7	RUDP-2787	Ambe Hi-tech	OPC	Chisang Khola	6-Dec-19	13-Dec-19	3-Jan-20		23.25	M20
17	T2L25D	RUDP-2788	Ambe Hi-tech	OPC	Chisang Khola	6-Dec-19	13-Dec-19	3-Jan-20		22.66	M20
18	R-5	RUDP-2789	Ambe Hi-tech	OPC	Chisang Khola	6-Dec-19	13-Dec-19	3-Jan-20		23.10	M20
19	T3L10A	RUDP-2790	Ambe Hi-tech	OPC	Chisang Khola	6-Dec-19	13-Dec-19	3-Jan-20		23.13	M20
20	Koshi-yard	RUDP-2791	Ambe Hi-tech	OPC	Chisang Khola	6-Dec-19	13-Dec-19	3-Jan-20		22.33	M20
21	R-4	RUDP-2792	Ambe Hi-tech	OPC	Chisang Khola	6-Dec-19	13-Dec-19	3-Jan-20		22.55	M20
22	T3L10	RUDP-2793	Ambe Hi-tech	OPC	Chisang Khola	6-Dec-19	13-Dec-19	3-Jan-20		23.95	M20
23	T1L7B	RUDP-2794	Ambe Hi-tech	OPC	Chisang Khola	7-Dec-19	14-Dec-19	4-Jan-20		22.51	M20
24	T3L10A	RUDP-2795	Ambe Hi-tech	OPC	Chisang Khola	7-Dec-19	14-Dec-19	4-Jan-20		23.63	M20
25	T3L10A	RUDP-2796	Ambe Hi-tech	OPC	Chisang Khola	7-Dec-19	14-Dec-19	4-Jan-20		22.36	M20
26	N-8	RUDP-2797	Ambe Hi-tech	OPC	Chisang Khola	7-Dec-19	14-Dec-19	4-Jan-20		23.47	M20
27	R-2	RUDP-2798	Ambe Hi-tech	OPC	Chisang Khola	7-Dec-19	14-Dec-19	4-Jan-20		22.88	M20
28	R-44	RUDP-2799	Ambe Hi-tech	OPC	Chisang Khola	7-Dec-19	14-Dec-19	4-Jan-20		22.11	M20
29	R-12	RUDP-2800	Ambe Hi-tech	OPC	Chisang Khola	7-Dec-19	14-Dec-19	4-Jan-20		23.21	M20
30	N-10	RUDP-2801	Ambe Hi-tech	OPC	Chisang Khola	7-Dec-19	14-Dec-19	4-Jan-20		22.66	M20
31	Koshi-yard	RUDP-2802	Ambe Hi-tech	OPC	Chisang Khola	7-Dec-19	14-Dec-19	4-Jan-20		22.95	M20
32	T3L10	RUDP-2803	Ambe Hi-tech	OPC	Chisang Khola	8-Dec-19	15-Dec-19	5-Jan-20		22.11	M20
33	R-26	RUDP-2804	Ambe Hi-tech	OPC	Chisang Khola	8-Dec-19	15-Dec-19	5-Jan-20		21.51	M20
34	Koshi-yard	RUDP-2805	Ambe Hi-tech	OPC	Chisang Khola	8-Dec-19	15-Dec-19	5-Jan-20		22.43	M20
35	Madhumara-yard	RUDP-2806	Ambe Hi-tech	OPC	Chisang Khola	8-Dec-19	15-Dec-19	5-Jan-20		22.16	M25
36	T3L25D	RUDP-2807	Ambe Hi-tech	OPC	Chisang Khola	9-Dec-19	16-Dec-19	6-Jan-20		23.10	M20
37	T3L24B	RUDP-2808	Ambe Hi-tech	OPC	Chisang Khola	9-Dec-19	16-Dec-19	6-Jan-20		22.18	M20
38	R-46	RUDP-2809	Ambe Hi-tech	OPC	Chisang Khola	10-Dec-20	17-Dec-20	7-Jan-21		21.71	M20
39	T3L10A	RUDP-2810	Ambe Hi-tech	OPC	Chisang Khola	10-Dec-19	17-Dec-19	7-Jan-20		23.43	M20
40	R-83	RUDP-2811	Ambe Hi-tech	OPC	Chisang Khola	10-Dec-19	17-Dec-19	7-Jan-20		23.10	M20
41	Koshi-yard	RUDP-2812	Ambe Hi-tech	OPC	Chisang Khola	11-Dec-19	18-Dec-19	8-Jan-20		23.58	M20
42	Madhumara-yard	RUDP-2813	Ambe Hi-tech	OPC	Chisang Khola	11-Dec-19	18-Dec-19	8-Jan-20		26.63	M25
43	R-5	RUDP-2814	Ambe Hi-tech	OPC	Chisang Khola	11-Dec-19	18-Dec-19	8-Jan-20		22.03	M20
44	N-7	RUDP-2815	Ambe Hi-tech	OPC	Chisang Khola	12-Dec-19	19-Dec-19	9-Jan-20		22.26	M20
45	R-46	RUDP-2816	Ambe Hi-tech	OPC	Chisang Khola	12-Dec-19	19-Dec-19	9-Jan-20		23.00	M20
46	R-39	RUDP-2817	Ambe Hi-tech	OPC	Chisang Khola	12-Dec-19	19-Dec-19	9-Jan-20		23.25	M20
47	Koshi-yard	RUDP-2818	Ambe Hi-tech	OPC	Chisang Khola	12-Dec-19	19-Dec-19	9-Jan-20		22.21	M20

Contractor		Consultant	
 <p>ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD</p>		<p>BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL</p>	
<p>Checked By Engineer 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 Giresch 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 2

S.N.	Location	Lab Ref.no.	Type of Cement	Brand of Cement	Source of Sand+Agg.	Date of Casting	Month		January		Concrete Grade		
							Year		2020				
							Type of Material					Conc. Cube	
							Date of Testing		Strength, N/mm2				
		7 Days	28 Days	7 Days	28 Days								
48	R-12	RUDP-2819	Ambe Hi-tech	OPC	Chisang Khola	12-Dec-19	19-Dec-19	9-Jan-20		22.03	M20		
49	R-4	RUDP-2820	Ambe Hi-tech	OPC	Chisang Khola	12-Dec-19	19-Dec-19	9-Jan-20		23.36	M20		
50	R-4	RUDP-2821	Ambe Hi-tech	OPC	Chisang Khola	12-Dec-19	19-Dec-19	9-Jan-20		16.92	M15		
51	R-4	RUDP-2822	Ambe Hi-tech	OPC	Chisang Khola	12-Dec-19	19-Dec-19	9-Jan-20		21.66	M20		
52	R-12	RUDP-2823	Ambe Hi-tech	OPC	Chisang Khola	12-Dec-19	19-Dec-19	9-Jan-20		22.51	M20		
53	Koshi-yard	RUDP-2824	Ambe Hi-tech	OPC	Chisang Khola	12-Dec-19	19-Dec-19	9-Jan-20		22.21	M20		
54	Madhumara-yard	RUDP-2825	Ambe Hi-tech	OPC	Chisang Khola	12-Dec-19	19-Dec-19	9-Jan-20		26.17	M25		
55	T3L10	RUDP-2826	Ambe Hi-tech	OPC	Chisang Khola	13-Dec-19	20-Dec-19	10-Jan-20		24.14	M20		
56	T3L25A	RUDP-2827	Ambe Hi-tech	OPC	Chisang Khola	13-Dec-19	20-Dec-19	10-Jan-20		22.51	M20		
57	R-12	RUDP-2828	Ambe Hi-tech	OPC	Chisang Khola	13-Dec-19	20-Dec-19	10-Jan-20		23.36	M20		
58	R-26	RUDP-2829	Ambe Hi-tech	OPC	Chisang Khola	13-Dec-19	20-Dec-19	10-Jan-20		22.26	M20		
59	Koshi-yard	RUDP-2830	Ambe Hi-tech	OPC	Chisang Khola	13-Dec-19	20-Dec-19	10-Jan-20		23.65	M20		
60	R-3	RUDP-2831	Ambe Hi-tech	OPC	Chisang Khola	13-Dec-19	20-Dec-19	10-Jan-20		23.03	M20		
61	R-46	RUDP-2832	Ambe Hi-tech	OPC	Chisang Khola	14-Dec-19	21-Dec-19	11-Jan-20		22.96	M20		
62	R-4	RUDP-2833	Ambe Hi-tech	OPC	Chisang Khola	14-Dec-20	21-Dec-20	11-Jan-21		16.16	M15		
63	R-44	RUDP-2834	Ambe Hi-tech	OPC	Chisang Khola	14-Dec-19	21-Dec-19	11-Jan-20		21.56	M20		
64	R-39	RUDP-2835	Ambe Hi-tech	OPC	Chisang Khola	14-Dec-19	21-Dec-19	11-Jan-20		24.54	M20		
65	R-4	RUDP-2836	Ambe Hi-tech	OPC	Chisang Khola	14-Dec-19	21-Dec-19	11-Jan-20		22.18	M20		
66	R-5	RUDP-2837	Ambe Hi-tech	OPC	Chisang Khola	14-Dec-19	21-Dec-19	11-Jan-20		23.36	M20		
67	R-2	RUDP-2838	Ambe Hi-tech	OPC	Chisang Khola	14-Dec-19	21-Dec-19	11-Jan-20		22.58	M20		
68	R-3	RUDP-2839	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20		23.18	M20		
69	Koshi-yard	RUDP-2840	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20		22.58	M20		
70	N-2	RUDP-2841	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20		21.41	M20		
71	N-10	RUDP-2842	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20		23.10	M20		
72	R-9	RUDP-2843	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20		23.28	M20		
73	T1L7A	RUDP-2844	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20		22.96	M20		
74	R-4	RUDP-2845	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20		17.61	M15		
75	R-4	RUDP-2846	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20		22.18	M20		
76	R-12	RUDP-2847	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20		23.80	M20		
77	R-44	RUDP-2848	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20		22.08	M20		
78	Koshi-yard	RUDP-2849	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20		23.21	M20		
79	N-7	RUDP-2850	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20		22.81	M20		
80	N-8	RUDP-2851	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20		22.29	M20		
81	T1L7A	RUDP-2852	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20		23.36	M20		
82	T3L24B	RUDP-2853	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20		22.18	M20		
83	R-5	RUDP-2854	Ambe Hi-tech	OPC	Chisang Khola	15-Dec-19	22-Dec-19	12-Jan-20		23.36	M20		
84	R-83	RUDP-2855	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20		23.43	M20		
85	T3L10A	RUDP-2856	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20		22.18	M20		
86	R-3	RUDP-2857	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20		22.59	M20		
87	Koshi-yard	RUDP-2858	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20		23.58	M20		
88	R-4	RUDP-2859	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20		16.62	M15		
89	R-4	RUDP-2860	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20		17.66	M15		
90	Madhumara-yard	RUDP-2861	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20		27.46	M25		
91	T1L7B	RUDP-2862	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20		23.13	M20		
92	T3L25A	RUDP-2863	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20		22.88	M20		
93	R-5	RUDP-2864	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20		21.66	M20		
94	N-8	RUDP-2865	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20		21.86	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, KASHMANDU, 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 Giresch 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 3

S.N.	Location	Lab Ref.no.	Type of Cement	Brand of Cement	Source of Sand+Agg.	Date of Casting	Date of Testing		Strength, N/mm ²		Concrete Grade
							7 Days	28 Days	7 Days	28 Days	
							Month		Year		
									January	2020	Conc. Cube
95	N-2	RUDP-2866	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20		23.28	M20
96	R-9	RUDP-2867	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20		21.96	M20
97	N-10	RUDP-2868	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20		23.03	M20
98	R-12	RUDP-2869	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20		22.26	M20
99	Koshi-yard	RUDP-2870	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20		22.84	M20
100	R-46	RUDP-2871	Ambe Hi-tech	OPC	Chisang Khola	16-Dec-19	23-Dec-19	13-Jan-20		23.58	M20
101	R-5	RUDP-2872	Ambe Hi-tech	OPC	Chisang Khola	17-Dec-19	24-Dec-19	14-Jan-20		22.63	M20
102	Koshi-yard	RUDP-2873	Ambe Hi-tech	OPC	Chisang Khola	17-Dec-19	24-Dec-19	14-Jan-20		22.26	M20
103	Koshi-yard	RUDP-2874	Ambe Hi-tech	OPC	Chisang Khola	17-Dec-19	24-Dec-19	14-Jan-20		23.06	M20
104	R-12	RUDP-2875	Ambe Hi-tech	OPC	Chisang Khola	17-Dec-19	24-Dec-19	14-Jan-20		21.93	M20
105	T1L7A	RUDP-2876	Ambe Hi-tech	OPC	Chisang Khola	17-Dec-19	24-Dec-19	14-Jan-20		22.48	M20
106	Madhumara-yard	RUDP-2877	Ambe Hi-tech	OPC	Chisang Khola	17-Dec-19	24-Dec-19	14-Jan-20		26.55	M25
107	Koshi-yard	RUDP-2878	Ambe Hi-tech	OPC	Chisang Khola	17-Dec-19	24-Dec-19	14-Jan-20		32.73	M30
108	T2L24B	RUDP-2879	Ambe Hi-tech	OPC	Chisang Khola	17-Dec-19	24-Dec-19	14-Jan-20		22.18	M20
109	R-44	RUDP-2880	Ambe Hi-tech	OPC	Chisang Khola	17-Dec-19	24-Dec-19	14-Jan-20		22.48	M20
110	N-7	RUDP-2881	Ambe Hi-tech	OPC	Chisang Khola	17-Dec-19	24-Dec-19	14-Jan-20		22.91	M20
111	R-2	RUDP-2882	Ambe Hi-tech	OPC	Chisang Khola	17-Dec-19	24-Dec-19	14-Jan-20		23.21	M20
112	Koshi Yard	RUDP-2883	Ambe Hi-tech	OPC	Chisang Khola	18-Dec-19	25-Dec-19	15-Jan-20		23.13	M20
113	T3L10	RUDP-2884	Ambe Hi-tech	OPC	Chisang Khola	18-Dec-19	25-Dec-19	15-Jan-20		22.11	M20
114	T2L25D	RUDP-2885	Ambe Hi-tech	OPC	Chisang Khola	18-Dec-19	25-Dec-19	15-Jan-20		22.26	M20
115	R-12	RUDP-2886	Ambe Hi-tech	OPC	Chisang Khola	18-Dec-19	25-Dec-19	15-Jan-20		22.36	M20
116	R-5	RUDP-2887	Ambe Hi-tech	OPC	Chisang Khola	18-Dec-19	25-Dec-19	15-Jan-20		23.25	M20
117	Koshi Yard	RUDP-2888	Ambe Hi-tech	OPC	Chisang Khola	18-Dec-19	25-Dec-19	15-Jan-20		22.88	M20
118	T3L25A	RUDP-2889	Ambe Hi-tech	OPC	Chisang Khola	18-Dec-19	25-Dec-19	15-Jan-20		22.63	M20
119	N-10	RUDP-2890	Ambe Hi-tech	OPC	Chisang Khola	18-Dec-19	25-Dec-19	15-Jan-20		22.73	M20
120	R-4	RUDP-2891	Ambe Hi-tech	OPC	Chisang Khola	18-Dec-19	25-Dec-19	15-Jan-20		22.41	M20
121	R-39	RUDP-2892	Ambe Hi-tech	OPC	Chisang Khola	18-Dec-19	25-Dec-19	15-Jan-20		22.96	M20
122	R-9	RUDP-2893	Ambe Hi-tech	OPC	Chisang Khola	18-Dec-19	25-Dec-19	15-Jan-20		22.11	M20
123	R-4	RUDP-2894	Ambe Hi-tech	OPC	Chisang Khola	19-Dec-19	26-Dec-19	16-Jan-20		18.28	M15
124	R-4	RUDP-2895	Ambe Hi-tech	OPC	Chisang Khola	19-Dec-19	26-Dec-19	16-Jan-20		18.42	M-15
125	T3L10	RUDP-2896	Ambe Hi-tech	OPC	Chisang Khola	19-Dec-19	26-Dec-19	16-Jan-20		22.55	M20
126	R-39	RUDP-2897	Ambe Hi-tech	OPC	Chisang Khola	19-Dec-19	26-Dec-19	16-Jan-20		22.96	M20
127	N-2	RUDP-2898	Ambe Hi-tech	OPC	Chisang Khola	19-Dec-19	26-Dec-19	16-Jan-20		21.81	M20
128	R-2	RUDP-2899	Ambe Hi-tech	OPC	Chisang Khola	19-Dec-19	26-Dec-19	16-Jan-20		22.73	M20
129	Koshi Yard	RUDP-2900	Ambe Hi-tech	OPC	Chisang Khola	19-Dec-19	26-Dec-19	16-Jan-20		23.58	M20
130	Koshi Yard	RUDP-2901	Ambe Hi-tech	OPC	Chisang Khola	19-Dec-19	26-Dec-19	16-Jan-20		22.84	M20
131	T2L24E	RUDP-2902	Ambe Hi-tech	OPC	Chisang Khola	19-Dec-19	26-Dec-19	16-Jan-20		22.66	M20
132	R-46	RUDP-2903	Ambe Hi-tech	OPC	Chisang Khola	19-Dec-19	26-Dec-19	16-Jan-20		23.36	M20
133	R-26	RUDP-2904	Ambe Hi-tech	OPC	Chisang Khola	19-Dec-19	26-Dec-19	16-Jan-20		23.06	M20
134	R-2	RUDP-2905	Ambe Hi-tech	OPC	Chisang Khola	19-Dec-19	26-Dec-19	16-Jan-20		22.26	M20
135	R-4	RUDP-2906	Ambe Hi-tech	OPC	Chisang Khola	19-Dec-19	26-Dec-19	16-Jan-20		22.48	M20
136	Madhumara-Yard	RUDP-2907	Ambe Hi-tech	OPC	Chisang Khola	19-Dec-19	26-Dec-19	16-Jan-20		26.32	M25
137	Koshi Yard	RUDP-2908	Ambe Hi-tech	OPC	Chisang Khola	19-Dec-19	26-Dec-19	16-Jan-20		33.00	M30
138	T1L7B	RUDP-2909	Ambe Hi-tech	OPC	Chisang Khola	20-Dec-19	27-Dec-19	17-Jan-20		22.11	M20
139	T3L25A	RUDP-2910	Ambe Hi-tech	OPC	Chisang Khola	20-Dec-19	27-Dec-19	17-Jan-20		23.28	M20
140	T3L10	RUDP-2911	Ambe Hi-tech	OPC	Chisang Khola	20-Dec-19	27-Dec-19	17-Jan-20		23.13	M20
141	Koshi Yard	RUDP-2912	Ambe Hi-tech	OPC	Chisang Khola	20-Dec-19	27-Dec-19	17-Jan-20		22.48	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 Giresch 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 4

S.N.	Location	Lab Ref.no.	Type of Cement	Brand of Cement	Source of Sand+Agg.	Date of Casting	Date of Testing		Strength, N/mm2		Concrete Grade
							7 Days	28 Days	7 Days	28 Days	
							Month		Year		
									January	2020	
142	Koshi Yard	RUDP-2913	Ambe Hi-tech	OPC	Chisang Khola	20-Dec-19	27-Dec-19	17-Jan-20		22.99	M20
143	Koshi Yard	RUDP-2914	Ambe Hi-tech	OPC	Chisang Khola	20-Dec-19	27-Dec-19	17-Jan-20		23.36	M20
144	R-4	RUDP-2915	Ambe Hi-tech	OPC	Chisang Khola	20-Dec-19	27-Dec-19	17-Jan-20		23.73	M20
145	R-3	RUDP-2916	Ambe Hi-tech	OPC	Chisang Khola	20-Dec-19	27-Dec-19	17-Jan-20		22.96	M20
146	R-46	RUDP-2917	Ambe Hi-tech	OPC	Chisang Khola	20-Dec-19	27-Dec-19	17-Jan-20		22.18	M20
147	R-44	RUDP-2918	Ambe Hi-tech	OPC	Chisang Khola	20-Dec-19	27-Dec-19	17-Jan-20		23.65	M20
148	Madhumara-Yard	RUDP-2919	Ambe Hi-tech	OPC	Chisang Khola	20-Dec-19	27-Dec-19	17-Jan-20		27.45	M25
149	N-7	RUDP-2920	Ambe Hi-tech	OPC	Chisang Khola	20-Dec-19	27-Dec-19	17-Jan-20		23.58	M20
150	Koshi Yard	RUDP-2921	Ambe Hi-tech	OPC	Chisang Khola	21-Dec-19	27-Dec-19	18-Jan-20		22.41	M20
151	Koshi Yard	RUDP-2922	Ambe Hi-tech	OPC	Chisang Khola	21-Dec-19	28-Dec-19	18-Jan-20		22.73	M20
152	R-12	RUDP-2923	Ambe Hi-tech	OPC	Chisang Khola	21-Dec-19	28-Dec-19	18-Jan-20		22.66	M20
153	T3L24B	RUDP-2924	Ambe Hi-tech	OPC	Chisang Khola	21-Dec-19	28-Dec-19	18-Jan-20		23.21	M20
154	R-26	RUDP-2925	Ambe Hi-tech	OPC	Chisang Khola	21-Dec-19	28-Dec-19	18-Jan-20		22.29	M20
155	N-7	RUDP-2926	Ambe Hi-tech	OPC	Chisang Khola	21-Dec-19	28-Dec-19	18-Jan-20		22.03	M20
156	TIL7B	RUDP-2927	Ambe Hi-tech	OPC	Chisang Khola	21-Dec-19	28-Dec-19	18-Jan-20		23.50	M20
157	R-4	RUDP-2928	Ambe Hi-tech	OPC	Chisang Khola	21-Dec-19	28-Dec-19	18-Jan-20		16.99	M15
158	R-4	RUDP-2929	Ambe Hi-tech	OPC	Chisang Khola	21-Dec-19	28-Dec-19	18-Jan-20		16.92	M15
159	R-44	RUDP-2930	Ambe Hi-tech	OPC	Chisang Khola	21-Dec-19	28-Dec-19	18-Jan-20		22.51	M20
160	N-8	RUDP-2931	Ambe Hi-tech	OPC	Chisang Khola	21-Dec-19	28-Dec-19	18-Jan-20		22.11	M20
161	R-2	RUDP-2932	Ambe Hi-tech	OPC	Chisang Khola	21-Dec-19	28-Dec-19	18-Jan-20		22.95	M20
162	R-5	RUDP-2933	Ambe Hi-tech	OPC	Chisang Khola	21-Dec-19	28-Dec-19	18-Jan-20		23.28	M20
163	R-39	RUDP-2934	Ambe Hi-tech	OPC	Chisang Khola	22-Dec-19	29-Dec-19	19-Jan-20		22.88	M20
164	R-12	RUDP-2935	Ambe Hi-tech	OPC	Chisang Khola	22-Dec-19	29-Dec-19	19-Jan-20		22.58	M20
165	Koshi-yard	RUDP-2936	Ambe Hi-tech	OPC	Chisang Khola	22-Dec-19	29-Dec-19	19-Jan-20		22.48	M20
166	Madhumara-yard	RUDP-2937	Ambe Hi-tech	OPC	Chisang Khola	22-Dec-19	29-Dec-19	19-Jan-20		27.08	M25
167	R-4	RUDP-2938	Ambe Hi-tech	OPC	Chisang Khola	22-Dec-19	29-Dec-19	19-Jan-20		17.59	M15
168	R-4	RUDP-2939	Ambe Hi-tech	OPC	Chisang Khola	22-Dec-19	29-Dec-19	19-Jan-20		18.19	M15
169	Koshi-yard	RUDP-2940	Ambe Hi-tech	OPC	Chisang Khola	22-Dec-19	29-Dec-19	19-Jan-20		22.11	M20
170	T3L24B	RUDP-2941	Ambe Hi-tech	OPC	Chisang Khola	22-Dec-19	29-Dec-19	19-Jan-20		21.56	M20
171	Koshi-yard	RUDP-2942	Ambe Hi-tech	OPC	Chisang Khola	23-Dec-19	30-Dec-19	20-Jan-20		23.80	M20
172	Koshi-yard	RUDP-2943	Ambe Hi-tech	OPC	Chisang Khola	23-Dec-19	30-Dec-19	20-Jan-20		22.66	M20
173	R-5	RUDP-2944	Ambe Hi-tech	OPC	Chisang Khola	23-Dec-19	30-Dec-19	20-Jan-20		22.99	M20
174	TIL7A	RUDP-2945	Ambe Hi-tech	OPC	Chisang Khola	23-Dec-19	30-Dec-19	20-Jan-20		22.51	M20
175	Koshi-yard	RUDP-2946	Ambe Hi-tech	OPC	Chisang Khola	23-Dec-19	30-Dec-19	20-Jan-20		23.13	M20
176	R-4	RUDP-2947	Ambe Hi-tech	OPC	Chisang Khola	23-Dec-19	30-Dec-19	20-Jan-20		23.28	M20
177	R-39	RUDP-2948	Ambe Hi-tech	OPC	Chisang Khola	23-Dec-19	30-Dec-19	20-Jan-20		22.33	M20
178	R-2	RUDP-2949	Ambe Hi-tech	OPC	Chisang Khola	23-Dec-19	30-Dec-19	20-Jan-20		22.95	M20
179	R-44	RUDP-2950	Ambe Hi-tech	OPC	Chisang Khola	23-Dec-19	30-Dec-19	20-Jan-20		21.96	M20
180	T2L25D	RUDP-2951	Ambe Hi-tech	OPC	Chisang Khola	23-Dec-19	30-Dec-19	20-Jan-20		22.73	M20
181	Koshi-yard	RUDP-2952	Ambe Hi-tech	OPC	Chisang Khola	23-Dec-19	30-Dec-19	20-Jan-20		32.21	M30
182	R-4	RUDP-2953	Ambe Hi-tech	OPC	Chisang Khola	24-Dec-19	31-Dec-19	21-Jan-20		16.84	M15
183	R-4	RUDP-2954	Ambe Hi-tech	OPC	Chisang Khola	24-Dec-19	31-Dec-19	21-Jan-20		21.86	M20
184	Koshi-yard	RUDP-2955	Ambe Hi-tech	OPC	Chisang Khola	24-Dec-19	31-Dec-19	21-Jan-20		22.84	M20
185	R-5	RUDP-2956	Ambe Hi-tech	OPC	Chisang Khola	24-Dec-19	31-Dec-19	21-Jan-20		23.55	M20
186	R-12	RUDP-2957	Ambe Hi-tech	OPC	Chisang Khola	24-Dec-19	31-Dec-19	21-Jan-20		22.44	M20
187	TIL7A	RUDP-2958	Ambe Hi-tech	OPC	Chisang Khola	24-Dec-19	31-Dec-19	21-Jan-20		22.69	M20
188	Koshi-yard	RUDP-2959	Ambe Hi-tech	OPC	Chisang Khola	24-Dec-19	31-Dec-19	21-Jan-20		23.21	M20

Contractor

Consultant

ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD

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

Checked By
Engineer
Dhirendra 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 5

S.N.	Location	Lab Ref.no.	Type of Cement	Brand of Cement	Source of Sand+Agg.	Date of Casting	Date of Testing		Strength, N/mm2		Concrete Grade
							7 Days	28 Days	7 Days	28 Days	
							Month		January		
Year		2020									
Type of Material							Conc. Cube				
189	R-44	RUDP-2960	Ambe Hi-tech	OPC	Chisang Khola	24-Dec-19	31-Dec-19	21-Jan-20		22.96	M20
190	R-5	RUDP-2961	Ambe Hi-tech	OPC	Chisang Khola	24-Dec-19	31-Dec-19	21-Jan-20		23.73	M20
191	R-39	RUDP-2962	Ambe Hi-tech	OPC	Chisang Khola	24-Dec-19	31-Dec-19	21-Jan-20		23.21	M20
192	N-7	RUDP-2963	Ambe Hi-tech	OPC	Chisang Khola	24-Dec-19	31-Dec-19	21-Jan-20		23.07	M20
193	R-26	RUDP-2964	Ambe Hi-tech	OPC	Chisang Khola	24-Dec-19	31-Dec-19	21-Jan-20		22.99	M20
194	N-8	RUDP-2965	Ambe Hi-tech	OPC	Chisang Khola	24-Dec-19	31-Dec-19	21-Jan-20		22.69	M20
195	R-2	RUDP-2966	Ambe Hi-tech	OPC	Chisang Khola	25-Dec-19	1-Jan-20	22-Jan-20	14.83	22.73	M20
196	T1L7A	RUDP-2967	Ambe Hi-tech	OPC	Chisang Khola	25-Dec-19	1-Jan-20	22-Jan-20	14.98	22.03	M20
197	T1L7B	RUDP-2968	Ambe Hi-tech	OPC	Chisang Khola	26-Dec-19	2-Jan-20	23-Jan-20	15.35	22.59	M20
198	Madhumara Yard	RUDP-2969	Ambe Hi-tech	OPC	Chisang Khola	26-Dec-19	2-Jan-20	23-Jan-20	18.34	26.86	M25
199	R-26	RUDP-2970	Ambe Hi-tech	OPC	Chisang Khola	26-Dec-19	2-Jan-20	23-Jan-20	16.02	21.96	M20
200	N-8	RUDP-2971	Ambe Hi-tech	OPC	Chisang Khola	26-Dec-19	2-Jan-20	23-Jan-20	15.35	23.36	M20
201	R-4	RUDP-2972	Ambe Hi-tech	OPC	Chisang Khola	27-Dec-19	3-Jan-20	24-Jan-20	14.98	22.11	M20
202	N-7	RUDP-2973	Ambe Hi-tech	OPC	Chisang Khola	27-Dec-19	3-Jan-20	24-Jan-20	15.87	21.96	M20
203	R-2	RUDP-2974	Ambe Hi-tech	OPC	Chisang Khola	27-Dec-19	3-Jan-20	24-Jan-20	16.32	22.43	M20
204	R-5	RUDP-2975	Ambe Hi-tech	OPC	Chisang Khola	29-Dec-19	5-Jan-20	26-Jan-20	16.32	23.88	M20
205	R-46	RUDP-2976	Ambe Hi-tech	OPC	Chisang Khola	29-Dec-19	5-Jan-20	*26-Jan-20	15.72	22.18	M20
206	T3L10A	RUDP-2977	Ambe Hi-tech	OPC	Chisang Khola	29-Dec-19	5-Jan-20	26-Jan-20	14.90	23.48	M20
207	T3L25A	RUDP-2978	Ambe Hi-tech	OPC	Chisang Khola	30-Dec-19	6-Jan-20	27-Jan-20	15.72	22.03	M20
208	R-16	RUDP-2979	Ambe Hi-tech	OPC	Chisang Khola	30-Dec-19	6-Jan-20	27-Jan-20	17.00	23.58	M20
209	N-31	RUDP-2980	Ambe Hi-tech	OPC	Chisang Khola	31-Dec-19	7-Jan-20	28-Jan-20	17.29	23.43	M20
210	T1L7A	RUDP-2981	Ambe Hi-tech	OPC	Chisang Khola	31-Dec-19	7-Jan-20	28-Jan-20	16.84	22.51	M20
211	R-105	RUDP-2982	Ambe Hi-tech	OPC	Chisang Khola	31-Dec-19	7-Jan-20	28-Jan-20	16.77	23.80	M20
212	Koshi Yard	RUDP-2983	Ambe Hi-tech	OPC	Chisang Khola	31-Dec-19	7-Jan-20	28-Jan-20	16.62	24.10	M20
213	T1L8B	RUDP-2984	Ambe Hi-tech	OPC	Chisang Khola	1-Jan-20	7-Jan-20	28-Jan-20	15.72	21.63	M20
214	R-12	RUDP-2985	Ambe Hi-tech	OPC	Chisang Khola	1-Jan-20	8-Jan-20	29-Jan-20	16.55	22.51	M20
215	R-82	RUDP-2986	Ambe Hi-tech	OPC	Chisang Khola	1-Jan-20	8-Jan-20	29-Jan-20	17.82	23.28	M20
216	N-8	RUDP-2987	Ambe Hi-tech	OPC	Chisang Khola	1-Jan-20	8-Jan-20	29-Jan-20	17.59	23.36	M20
217	T2L24	RUDP-2988	Ambe Hi-tech	OPC	Chisang Khola	1-Jan-20	8-Jan-20	29-Jan-20	17.14	22.11	M20
218	R-105	RUDP-2989	Ambe Hi-tech	OPC	Chisang Khola	1-Jan-20	8-Jan-20	29-Jan-20	16.92	22.51	M20
219	Koshi Yard	RUDP-2990	Ambe Hi-tech	OPC	Chisang Khola	1-Jan-20	8-Jan-20	29-Jan-20	15.95	23.28	M20
220	N-3	RUDP-2991	Ambe Hi-tech	OPC	Chisang Khola	2-Jan-20	9-Jan-20	30-Jan-20	15.80	22.76	M20
221	R-84	RUDP-2992	Ambe Hi-tech	OPC	Chisang Khola	2-Jan-20	9-Jan-20	30-Jan-20	15.65	22.81	M20
222	R-16	RUDP-2993	Ambe Hi-tech	OPC	Chisang Khola	2-Jan-20	9-Jan-20	30-Jan-20	17.74	23.13	M20
223	N-31	RUDP-2994	Ambe Hi-tech	OPC	Chisang Khola	2-Jan-20	9-Jan-20	30-Jan-20	16.25	23.10	M20
224	T1L8B	RUDP-2995	Ambe Hi-tech	OPC	Chisang Khola	2-Jan-20	9-Jan-20	30-Jan-20	16.39	22.26	M20
225	T3L10A	RUDP-2996	Ambe Hi-tech	OPC	Chisang Khola	2-Jan-20	9-Jan-20	30-Jan-20	16.84	22.59	M20
226	N-3	RUDP-2997	Ambe Hi-tech	OPC	Chisang Khola	3-Jan-20	10-Jan-20	31-Jan-20	15.50	22.03	M20
227	R-5	RUDP-2998	Ambe Hi-tech	OPC	Chisang Khola	3-Jan-20	10-Jan-20	31-Jan-20	17.06	23.33	M20
228	R-3	RUDP-2999	Ambe Hi-tech	OPC	Chisang Khola	3-Jan-20	10-Jan-20	31-Jan-20	16.77	22.91	M20
229	T3L39A	RUDP-3000	Ambe Hi-tech	OPC	Chisang Khola	3-Jan-20	10-Jan-20	31-Jan-20	16.02	22.84	M20
230	T1L7A	RUDP-3001	Ambe Hi-tech	OPC	Chisang Khola	4-Jan-20	11-Jan-20	1-Feb-20	15.20		M20
231	T3L25A	RUDP-3002	Ambe Hi-tech	OPC	Chisang Khola	4-Jan-20	11-Jan-20	1-Feb-20	15.72		M20
232	R-12	RUDP-3003	Ambe Hi-tech	OPC	Chisang Khola	4-Jan-20	11-Jan-20	1-Feb-20	16.39		M20
233	R-46	RUDP-3004	Ambe Hi-tech	OPC	Chisang Khola	4-Jan-20	11-Jan-20	1-Feb-20	15.80		M20
234	R-16	RUDP-3005	Ambe Hi-tech	OPC	Chisang Khola	4-Jan-20	11-Jan-20	1-Feb-20	14.46		M20
235	N-31	RUDP-3006	Ambe Hi-tech	OPC	Chisang Khola	4-Jan-20	11-Jan-20	1-Feb-20	16.54		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 Giresch 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 6

S.N.	Location	Lab Ref.no.	Type of Cement	Brand of Cement	Source of Sand+Agg.	Date of Casting	Month		January		Concrete Grade
							Year		2020		
							Type of Material		Conc. Cube		
							Date of Testing		Strength, N/mm2		
							7 Days	28 Days	7 Days	28 Days	
236	R-12	RUDP-3007	Ambe Hi-tech	OPC	Chisang Khola	5-Jan-20	12-Jan-20	2-Feb-20	16.69		M20
237	R-82	RUDP-3008	Ambe Hi-tech	OPC	Chisang Khola	5-Jan-20	12-Jan-20	2-Feb-20	15.72		M20
238	T1L8B	RUDP-3009	Ambe Hi-tech	OPC	Chisang Khola	5-Jan-20	12-Jan-20	2-Feb-20	14.61		M20
239	N-8	RUDP-3010	Ambe Hi-tech	OPC	Chisang Khola	6-Jan-20	13-Jan-20	3-Feb-20	16.84		M20
240	R-2	RUDP-3011	Ambe Hi-tech	OPC	Chisang Khola	6-Jan-20	13-Jan-20	3-Feb-20	17.74		M20
241	N-7	RUDP-3012	Ambe Hi-tech	OPC	Chisang Khola	6-Jan-20	13-Jan-20	3-Feb-20	16.69		M20
242	Koshi yard	RUDP-3013	Ambe Hi-tech	OPC	Chisang Khola	7-Jan-20	14-Jan-20	4-Feb-20	18.63		M20
243	Madhumara Yard	RUDP-3014	Ambe Hi-tech	OPC	Chisang Khola	7-Jan-20	14-Jan-20	4-Feb-20	18.49		M25
244	R-3	RUDP-3015	Ambe Hi-tech	OPC	Chisang Khola	7-Jan-20	14-Jan-20	4-Feb-20	16.54		M20
245	N-3	RUDP-3016	Ambe Hi-tech	OPC	Chisang Khola	7-Jan-20	14-Jan-20	4-Feb-20	15.65		M20
246	R-26	RUDP-3017	Ambe Hi-tech	OPC	Chisang Khola	7-Jan-20	14-Jan-20	4-Feb-20	15.13		M20
247	T1L8B	RUDP-3018	Ambe Hi-tech	OPC	Chisang Khola	8-Jan-20	15-Jan-20	5-Feb-20	16.77		M20
248	N-8	RUDP-3019	Ambe Hi-tech	OPC	Chisang Khola	8-Jan-20	15-Jan-20	5-Feb-20	16.32		M20
249	R-5	RUDP-3020	Ambe Hi-tech	OPC	Chisang Khola	8-Jan-20	15-Jan-20	5-Feb-20	14.98		M20
250	R-4	RUDP-3021	Ambe Hi-tech	OPC	Chisang Khola	8-Jan-20	15-Jan-20	5-Feb-20	17.90		M20
251	T2L24	RUDP-3022	Ambe Hi-tech	OPC	Chisang Khola	9-Jan-20	16-Jan-20	6-Feb-20	17.44		M20
252	R-46	RUDP-3023	Ambe Hi-tech	OPC	Chisang Khola	9-Jan-20	16-Jan-20	6-Feb-20	15.43		M20
253	R-4	RUDP-3024	Ambe Hi-tech	OPC	Chisang Khola	10-Jan-20	17-Jan-20	7-Feb-20	17.59		M20
254	Madhumara Yard	RUDP-3025	Ambe Hi-tech	OPC	Chisang Khola	10-Jan-20	17-Jan-20	7-Feb-20	18.87		M25
255	T1L7B	RUDP-3026	Ambe Hi-tech	OPC	Chisang Khola	10-Jan-20	17-Jan-20	7-Feb-20	14.90		M20
256	R-5	RUDP-3027	Ambe Hi-tech	OPC	Chisang Khola	10-Jan-20	17-Jan-20	7-Feb-20	14.75		M20
257	Koshi yard	RUDP-3028	Ambe Hi-tech	OPC	Chisang Khola	10-Jan-20	17-Jan-20	7-Feb-20	17.82		M20
258	T3L10A	RUDP-3029	Ambe Hi-tech	OPC	Chisang Khola	10-Jan-20	17-Jan-20	7-Feb-20	15.80		M20
259	R-16	RUDP-3030	Ambe Hi-tech	OPC	Chisang Khola	10-Jan-20	17-Jan-20	7-Feb-20	17.59		M20
260	R-2	RUDP-3031	Ambe Hi-tech	OPC	Chisang Khola	10-Jan-20	17-Jan-20	7-Feb-20	17.60		M20
261	N-3	RUDP-3032	Ambe Hi-tech	OPC	Chisang Khola	11-Jan-20	18-Jan-20	8-Feb-20	16.32		M20
262	R-46	RUDP-3033	Ambe Hi-tech	OPC	Chisang Khola	11-Jan-20	18-Jan-20	8-Feb-20	15.95		M20
263	R-46	RUDP-3034	Ambe Hi-tech	OPC	Chisang Khola	11-Jan-20	18-Jan-20	8-Feb-20	16.39		M20
264	R-15	RUDP-3035	Ambe Hi-tech	OPC	Chisang Khola	11-Jan-20	18-Jan-20	8-Feb-20	16.99		M20
265	N-31	RUDP-3036	Ambe Hi-tech	OPC	Chisang Khola	11-Jan-20	18-Jan-20	8-Feb-20	15.35		M20
266	N-8	RUDP-3037	Ambe Hi-tech	OPC	Chisang Khola	11-Jan-20	18-Jan-20	8-Feb-20	14.68		M20
267	R-16	RUDP-3038	Ambe Hi-tech	OPC	Chisang Khola	12-Jan-20	19-Jan-20	9-Feb-20	16.69		M20
268	R-3	RUDP-3039	Ambe Hi-tech	OPC	Chisang Khola	12-Jan-20	19-Jan-20	9-Feb-20	16.10		M20
269	T3L25A	RUDP-3040	Ambe Hi-tech	OPC	Chisang Khola	12-Jan-20	19-Jan-20	9-Feb-20	15.35		M20
270	N-3	RUDP-3041	Ambe Hi-tech	OPC	Chisang Khola	13-Jan-20	20-Jan-20	10-Feb-20	15.87		M20
271	R-46	RUDP-3042	Ambe Hi-tech	OPC	Chisang Khola	13-Jan-20	20-Jan-20	10-Feb-20	15.65		M20
272	T1L7B	RUDP-3043	Ambe Hi-tech	OPC	Chisang Khola	13-Jan-20	20-Jan-20	10-Feb-20	17.22		M20
273	R-12	RUDP-3044	Ambe Hi-tech	OPC	Chisang Khola	13-Jan-20	20-Jan-20	10-Feb-20	16.10		M20
274	T2L24	RUDP-3045	Ambe Hi-tech	OPC	Chisang Khola	14-Jan-20	21-Jan-20	11-Feb-20	15.28		M20
275	R-82	RUDP-3046	Ambe Hi-tech	OPC	Chisang Khola	14-Jan-20	21-Jan-20	11-Feb-20	16.25		M20
276	T3L10A	RUDP-3047	Ambe Hi-tech	OPC	Chisang Khola	14-Jan-20	21-Jan-20	11-Feb-20	16.17		M20
277	R-26	RUDP-3048	Ambe Hi-tech	OPC	Chisang Khola	14-Jan-20	21-Jan-20	11-Feb-20	15.43		M20
278	T1L25A	RUDP-3049	Ambe Hi-tech	OPC	Chisang Khola	14-Jan-20	21-Jan-20	11-Feb-20	16.92		M20
279	R-2	RUDP-3050	Ambe Hi-tech	OPC	Chisang Khola	15-Jan-20	22-Jan-20	12-Feb-20	15.43		M20
280	Koshi yard	RUDP-3051	Ambe Hi-tech	OPC	Chisang Khola	15-Jan-20	22-Jan-20	12-Feb-20	16.02		M20
281	Koshi yard	RUDP-3052	Ambe Hi-tech	OPC	Chisang Khola	15-Jan-20	22-Jan-20	12-Feb-20	14.90		M20
282	Madhumara Yard	RUDP-3053	Ambe Hi-tech	OPC	Chisang Khola	15-Jan-20	22-Jan-20	12-Feb-20	17.67		M25

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 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 7

S.N.	Location	Lab Ref.no.	Type of Cement	Brand of Cement	Source of Sand+Agg.	Date of Casting	Month		January		Concrete Grade
							Year		2020		
							Type of Material		Conc. Cube		
							Date of Testing		Strength, N/mm2		
7 Days	28 Days	7 Days	28 Days								
283	R-4	RUDP-3054	Ambe Hi-tech	OPC	Chisang Khola	15-Jan-20	22-Jan-20	12-Feb-20	12.83		M15
284	N-7	RUDP-3055	Ambe Hi-tech	OPC	Chisang Khola	15-Jan-20	22-Jan-20	12-Feb-20	15.35		M20
285	N-3	RUDP-3056	Ambe Hi-tech	OPC	Chisang Khola	15-Jan-20	22-Jan-20	12-Feb-20	14.46		M20
286	R-46	RUDP-3057	Ambe Hi-tech	OPC	Chisang Khola	15-Jan-20	22-Jan-20	12-Feb-20	15.57		M20
287	T3L25A	RUDP-3058	Ambe Hi-tech	OPC	Chisang Khola	15-Jan-20	22-Jan-20	12-Feb-20	16.77		M20
288	R-15	RUDP-3059	Ambe Hi-tech	OPC	Chisang Khola	15-Jan-20	22-Jan-20	12-Feb-20	14.98		M20
289	R-12	RUDP-3060	Ambe Hi-tech	OPC	Chisang Khola	15-Jan-20	22-Jan-20	12-Feb-20	14.83		M20
290	R-5	RUDP-3061	Ambe Hi-tech	OPC	Chisang Khola	16-Jan-20	23-Jan-20	13-Feb-20	15.80		M20
291	R-84	RUDP-3062	Ambe Hi-tech	OPC	Chisang Khola	16-Jan-20	23-Jan-20	13-Feb-20	16.69		M20
292	T3L10A	RUDP-3063	Ambe Hi-tech	OPC	Chisang Khola	16-Jan-20	23-Jan-20	13-Feb-20	16.25		M20
293	T1L7A	RUDP-3064	Ambe Hi-tech	OPC	Chisang Khola	16-Jan-20	23-Jan-20	13-Feb-20	17.07		M20
294	R-26	RUDP-3065	Ambe Hi-tech	OPC	Chisang Khola	16-Jan-20	23-Jan-20	13-Feb-20	15.35		M20
295	Koshi Yard	RUDP-3066	Ambe Hi-tech	OPC	Chisang Khola	16-Jan-20	23-Jan-20	13-Feb-20	22.18		M30
296	Koshi Yard	RUDP-3067	Ambe Hi-tech	OPC	Chisang Khola	16-Jan-20	23-Jan-20	13-Feb-20	15.20		M20
297	T3L39A	RUDP-3068	Ambe Hi-tech	OPC	Chisang Khola	16-Jan-20	23-Jan-20	13-Feb-20	14.90		M20
298	N-31	RUDP-3069	Ambe Hi-tech	OPC	Chisang Khola	16-Jan-20	23-Jan-20	13-Feb-20	16.25		M20
299	T2L24	RUDP-3070	Ambe Hi-tech	OPC	Chisang Khola	16-Jan-20	23-Jan-20	13-Feb-20	15.80		M20
300	T3L10A	RUDP-3071	Ambe Hi-tech	OPC	Chisang Khola	18-Jan-20	25-Jan-20	15-Feb-20	14.75		M20
301	T1L8B	RUDP-3072	Ambe Hi-tech	OPC	Chisang Khola	18-Jan-20	25-Jan-20	15-Feb-20	15.50		M20
302	R-16	RUDP-3073	Ambe Hi-tech	OPC	Chisang Khola	18-Jan-20	25-Jan-20	15-Feb-20	16.69		M20
303	Madhumara yard	RUDP-3074	Ambe Hi-tech	OPC	Chisang Khola	18-Jan-20	25-Jan-20	15-Feb-20	18.57		M25
304	R-2	RUDP-3075	Ambe Hi-tech	OPC	Chisang Khola	18-Jan-20	25-Jan-20	15-Feb-20	17.14		M20
305	R-3	RUDP-3076	Ambe Hi-tech	OPC	Chisang Khola	18-Jan-20	25-Jan-20	15-Feb-20	14.46		M20
306	R-15	RUDP-3077	Ambe Hi-tech	OPC	Chisang Khola	18-Jan-20	25-Jan-20	15-Feb-20	15.80		M20
307	T3L39A	RUDP-3078	Ambe Hi-tech	OPC	Chisang Khola	18-Jan-20	25-Jan-20	15-Feb-20	16.10		M20
308	R-105	RUDP-3079	Ambe Hi-tech	OPC	Chisang Khola	18-Jan-20	25-Jan-20	15-Feb-20	16.10		M20
309	R-4	RUDP-3080	Ambe Hi-tech	OPC	Chisang Khola	18-Jan-20	25-Jan-20	15-Feb-20	13.83		M15
310	T1L7A	RUDP-3081	Ambe Hi-tech	OPC	Chisang Khola	19-Jan-20	26-Jan-20	16-Feb-20	15.57		M20
311	R-2	RUDP-3082	Ambe Hi-tech	OPC	Chisang Khola	19-Jan-20	26-Jan-20	16-Feb-20	16.32		M20
312	N-7	RUDP-3083	Ambe Hi-tech	OPC	Chisang Khola	19-Jan-20	26-Jan-20	16-Feb-20	16.77		M20
313	R-5	RUDP-3084	Ambe Hi-tech	OPC	Chisang Khola	19-Jan-20	26-Jan-20	16-Feb-20	14.91		M20
314	R-3	RUDP-3085	Ambe Hi-tech	OPC	Chisang Khola	19-Jan-20	26-Jan-20	16-Feb-20	15.20		M20
315	Koshi Yard	RUDP-3086	Ambe Hi-tech	OPC	Chisang Khola	19-Jan-20	26-Jan-20	16-Feb-20	14.98		M20
316	N-3	RUDP-3087	Ambe Hi-tech	OPC	Chisang Khola	19-Jan-20	26-Jan-20	16-Feb-20	14.75		M20
317	R-4	RUDP-3088	Ambe Hi-tech	OPC	Chisang Khola	19-Jan-20	26-Jan-20	16-Feb-20	16.17		M20
318	R-2	RUDP-3089	Ambe Hi-tech	OPC	Chisang Khola	19-Jan-20	26-Jan-20	16-Feb-20	16.62		M20
319	R-16	RUDP-3090	Ambe Hi-tech	OPC	Chisang Khola	21-Jan-20	28-Jan-20	18-Feb-20	17.90		M20
320	T2L24	RUDP-3091	Ambe Hi-tech	OPC	Chisang Khola	21-Jan-20	28-Jan-20	18-Feb-20	16.17		M20
321	T3L25A	RUDP-3092	Ambe Hi-tech	OPC	Chisang Khola	21-Jan-20	28-Jan-20	18-Feb-20	14.90		M20
322	R-46	RUDP-3093	Ambe Hi-tech	OPC	Chisang Khola	21-Jan-20	28-Jan-20	18-Feb-20	16.25		M20
323	T1L7B	RUDP-3094	Ambe Hi-tech	OPC	Chisang Khola	21-Jan-20	28-Jan-20	18-Feb-20	15.80		M20
324	R-12	RUDP-3095	Ambe Hi-tech	OPC	Chisang Khola	21-Jan-20	28-Jan-20	18-Feb-20	14.61		M20
325	N-31	RUDP-3096	Ambe Hi-tech	OPC	Chisang Khola	21-Jan-20	28-Jan-20	18-Feb-20	16.25		M20
326	R-4	RUDP-3097	Ambe Hi-tech	OPC	Chisang Khola	21-Jan-20	28-Jan-20	18-Feb-20	17.29		M20
327	R-5	RUDP-3098	Ambe Hi-tech	OPC	Chisang Khola	21-Jan-20	28-Jan-20	18-Feb-20	16.39		M20
328	R-3	RUDP-3099	Ambe Hi-tech	OPC	Chisang Khola	21-Jan-20	28-Jan-20	18-Feb-20	15.20		M20
329	R-4	RUDP-3100	Ambe Hi-tech	OPC	Chisang Khola	22-Jan-20	29-Jan-20	19-Feb-20	16.39		M20

Contractor
ZHONGHENG CONSTRUCTION GROUP
INTERNATIONAL ENGINEERING CO. LTD

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

Checked By
 Engineer
 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 8

S.N.	Location	Lab Ref.no.	Type of Cement	Brand of Cement	Source of Sand+Agg.	Date of Casting	Date of Testing		Strength, N/mm ²		Concrete Grade
							7 Days	28 Days	7 Days	28 Days	
							Type of Material		Conc. Cube		
							Month	January			
							Year	2020			
330	R-4	RUDP-3101	Ambe Hi-tech	OPC	Chisang Khola	22-Jan-20	29-Jan-20	19-Feb-20	12.97		M15
331	Koshi yard	RUDP-3102	Ambe Hi-tech	OPC	Chisang Khola	22-Jan-20	29-Jan-20	19-Feb-20	16.32		M20
332	Koshi yard	RUDP-3103	Ambe Hi-tech	OPC	Chisang Khola	22-Jan-20	29-Jan-20	19-Feb-20	15.20		M20
333	R-2	RUDP-3104	Ambe Hi-tech	OPC	Chisang Khola	22-Jan-20	29-Jan-20	19-Feb-20	17.67		M20
334	R-5	RUDP-3105	Ambe Hi-tech	OPC	Chisang Khola	22-Jan-20	29-Jan-20	19-Feb-20	16.17		M20
335	R-46	RUDP-3106	Ambe Hi-tech	OPC	Chisang Khola	22-Jan-20	29-Jan-20	19-Feb-20	17.52		M20
336	R-12	RUDP-3107	Ambe Hi-tech	OPC	Chisang Khola	22-Jan-20	29-Jan-20	19-Feb-20	15.35		M20
337	T2L24	RUDP-3108	Ambe Hi-tech	OPC	Chisang Khola	22-Jan-20	29-Jan-20	19-Feb-20	16.25		M20
338	R-26	RUDP-3109	Ambe Hi-tech	OPC	Chisang Khola	22-Jan-20	29-Jan-20	19-Feb-20	14.90		M20
339	Koshi yard	RUDP-3110	Ambe Hi-tech	OPC	Chisang Khola	24-Jan-20	31-Jan-20	21-Feb-20	17.22		M20
340	Madhumara yard	RUDP-3111	Ambe Hi-tech	OPC	Chisang Khola	24-Jan-20	31-Jan-20	21-Feb-20	18.50		M25
341	R-16	RUDP-3112	Ambe Hi-tech	OPC	Chisang Khola	24-Jan-20	31-Jan-20	21-Feb-20	14.61		M20
342	N-31	RUDP-3113	Ambe Hi-tech	OPC	Chisang Khola	24-Jan-20	31-Jan-20	21-Feb-20	14.53		M20
343	R-4	RUDP-3114	Ambe Hi-tech	OPC	Chisang Khola	24-Jan-20	31-Jan-20	21-Feb-20	16.32		M20
344	Koshi yard	RUDP-3115	Ambe Hi-tech	OPC	Chisang Khola	24-Jan-20	31-Jan-20	21-Feb-20	22.51		M30
345	Koshi yard	RUDP-3116	Ambe Hi-tech	OPC	Chisang Khola	24-Jan-20	31-Jan-20	21-Feb-20	15.13		M20
346	R-12	RUDP-3117	Ambe Hi-tech	OPC	Chisang Khola	24-Jan-20	31-Jan-20	*21-Feb-20	16.47		M20
347	N-31	RUDP-3118	Ambe Hi-tech	OPC	Chisang Khola	24-Jan-20	31-Jan-20	21-Feb-20	16.25		M20
348	T3L25A	RUDP-3119	Ambe Hi-tech	OPC	Chisang Khola	24-Jan-20	31-Jan-20	21-Feb-20	15.50		M20
349	T2L24	RUDP-3120	Ambe Hi-tech	OPC	Chisang Khola	24-Jan-20	31-Jan-20	21-Feb-20	14.98		M20

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



ANNEX-4: SOCIAL & ENVIRONMENT SAFEGUARD

Monitoring Formats Attached – January 2020



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

Subproject Road : -RUDP/ICB/BRT/2

Month/Year: January, 2020

Name of Contractor :-ZHONGGHENG Construction
Group International 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: January, 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	Pichra, Judi, Shanti Chowk, Rani	
3.2	First aid facilities available at camp and worksites	Yes	
3.3	Drinking water supply and sanitation facilities/ pit latrines	Tap water/ Hand Pump	
3.4	Waste Disposal and Management facilities	Yes	
3.5	Type of fuel used for cooking	L.P.G	
4	Spoil and Construction material Management		
4.1	Cut and fill balance maintained or not, Reuse of spoil materials	Cut & Fill balance maintained	
4.2	Use of safe spoil disposal locations	Not Applicable	
4.3	Disturbance to Pedestrian and traffic movement	No any disturbance to pedestrians & traffic	

Official stamps and signatures of the project authority and engineering firm.



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	

RUDP
Biratnagar

ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO., LTD.



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

LABOUR CLASS	LABOUR		COMPOSITION		ETHNIC COMPOSITION				
	SKILLED	UNSKILLED	MALE	FEMALE	JANJATI	DALIT	MUSLIM	MADHESI	BRAHMIN/CHHETRI
LOCAL	18	77	95	0	9	11	0	75	0
NON LOCAL	77	276	333	20	66	68	48	171	0
INDIAN	0	0	0	0	0	0	0	0	0
TOTAL	95	353	428	20	75	79	48	246	0



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

S.NO	LOCATION	TYPES OF WORK	TYPES OF WORKERS			LABOUR		COMPOSITION		ETHNIC COMPOSITION					BRAHMIN/CHHETRI	
			LOCAL	NON LOCAL	INDIAN	TOTAL	SKILLED	UNSKILLED	MALE	FEMALE	JANJATI	DALIT	MUSLIM	MADHESI		
1	R26	Drain	LOCAL													
			NON LOCAL	4	8	12	0	0	0	0	0	3	5	4	0	
			INDIAN	4	8	12	0	0	0	0	0	3	5	4	0	
2	R16	Drain	LOCAL	3	15	18	0	0	0	0	5	3	2	8	0	
			NON LOCAL	3	15	18	0	0	0	0	5	3	2	8	0	
			INDIAN	3	15	18	0	0	0	0	5	3	2	8	0	
3	N3	Drain	LOCAL	4	12	16	0	0	0	0	6	4	0	6	0	
			NON LOCAL	4	12	16	0	0	0	0	6	4	0	6	0	
			INDIAN	4	12	16	0	0	0	0	6	4	0	6	0	
5	T3125A	Drain	LOCAL	3	13	16	0	0	0	0	5	6	0	5	0	
			NON LOCAL	3	13	16	0	0	0	0	5	6	0	5	0	
			INDIAN	3	13	16	0	0	0	0	5	6	0	5	0	
6	N32	Drain	LOCAL	2	8	10	0	0	0	0	0	0	0	10	0	
			NON LOCAL	2	8	10	0	0	0	0	0	0	0	10	0	
			INDIAN	2	8	10	0	0	0	0	0	0	0	10	0	
7	T3110	Drain	LOCAL	4	18	22	0	0	0	0	2	5	5	10	0	
			NON LOCAL	4	18	22	0	0	0	0	2	5	5	10	0	
			INDIAN	4	18	22	0	0	0	0	2	5	5	10	0	
8	T3118A	Drain	LOCAL	2	12	14	0	0	0	0	4	5	0	5	0	
			NON LOCAL	2	12	14	0	0	0	0	4	5	0	5	0	
			INDIAN	2	12	14	0	0	0	0	4	5	0	5	0	
9	T3 (trunk line)	House Connection	LOCAL	2	10	12	0	0	0	0	0	0	0	12	0	
			NON LOCAL	2	10	12	0	0	0	0	0	0	0	12	0	
			INDIAN	2	10	12	0	0	0	0	0	0	0	12	0	



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

Month/Year: Jan, 2020

S.NO	LOCATION	TYPES OF WORK	TYPES OF WORKERS	LABOUR			COMPOSITION		ETHNIC COMPOSITION					
				SKILLED	UNSKILLED	MALE	FEMALE	JANJATI	DALIT	MUSLIM	MADHESI	BRAHMIN/CHHETRI		
10	R16	House Connection	LOCAL	3	10	13	0	0	0	0	0	0	13	0
			NON LOCAL											
			INDIAN											
			TOTAL	3	10	13	0	0	0	0	0	13	0	
11	R110	House Connection	LOCAL	2	8	10	0	0	0	0	0	0	10	0
			NON LOCAL											
			INDIAN											
			TOTAL	2	8	10	0	0	0	0	0	10	0	
12	R105	Brooming	LOCAL	4	20	4	20	5	5	0	0	0	14	0
			NON LOCAL											
			INDIAN											
			TOTAL	4	20	4	20	5	5	0	0	14	0	
13	R105	Prime	LOCAL	2	3	5	0	0	0	0	0	0	5	0
			NON LOCAL											
			INDIAN											
			TOTAL	2	3	5	0	0	0	0	0	5	0	
14	Madhumara Yard	Production	LOCAL	5	18	23	0	10	0	0	0	0	13	0
			NON LOCAL											
			INDIAN											
			TOTAL	5	18	23	0	10	0	0	0	13	0	
15	Koshi Yard	Production	LOCAL	5	30	35	0	10	5	0	0	0	20	0
			NON LOCAL											
			INDIAN											
			TOTAL	5	30	35	0	10	5	0	0	20	0	
16	R2	Drain Group(A)	LOCAL	4	15	19	0	0	0	0	0	0	19	0
			NON LOCAL											
			INDIAN											
			TOTAL	4	15	19	0	0	0	0	0	19	0	
17	R2	Drain Group(B)	LOCAL	5	16	21	0	5	5	0	0	0	11	0
			NON LOCAL											
			INDIAN											
			TOTAL	5	16	21	0	5	5	0	0	11	0	
18	R2	Drain Maintenance	LOCAL	2	3	5	0	2	3	0	0	0	0	0
			NON LOCAL											
			INDIAN											
			TOTAL	2	3	5	0	2	3	0	0	0	0	



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

Month/Year: Jan, 2020

S.NO	LOCATION	TYPES OF WORK	TYPES OF WORKERS			LABOUR		COMPOSITION		ETHNIC COMPOSITION						
			LOCAL	NON LOCAL	INDIAN	TOTAL	SKILLED	UNSKILLED	MALE	FEMALE	JANJATI	DALIT	MUSLIM	MADHESI	BRAHMIN/CHHETRI	
19	R15	Weep hole					3	5	8	0	0	3	0	0	5	0
							3	5	8	0	0	3	0	0	5	0
20	N3	Drain					3	15	18	0	0	0	8	10	0	0
							3	15	18	0	0	0	8	10	0	0
21	R4	RCC Drain					4	12	16	0	0	0	6	0	10	0
							4	12	16	0	0	0	6	0	10	0
22	R46	Drain					5	16	21	0	0	6	5	5	5	0
							5	16	21	0	0	6	5	5	5	0
19	R3 Trunk line	Drain					3	12	15	0	0	0	0	10	5	0
							3	12	15	0	0	0	0	10	5	0
20	R3 Trunk line	Kerbstone					3	11	14	0	0	4	0	0	10	0
							3	11	14	0	0	4	0	0	10	0
21	R5	Drain					2	9	11	0	0	0	0	0	11	0
							2	9	11	0	0	0	0	0	11	0
22	S13	Culvert Crossing					3	9	12	0	0	4	0	0	8	0
							3	9	12	0	0	4	0	0	8	0
	T3L21	Gutter					2	11	13	0	0	0	0	3	10	0
							2	11	13	0	0	0	0	3	10	0
21	R2	Interlock					4	12	16	0	0	0	10	0	6	0
							4	12	16	0	0	0	10	0	6	0



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

Month/Year: Jan, 2020

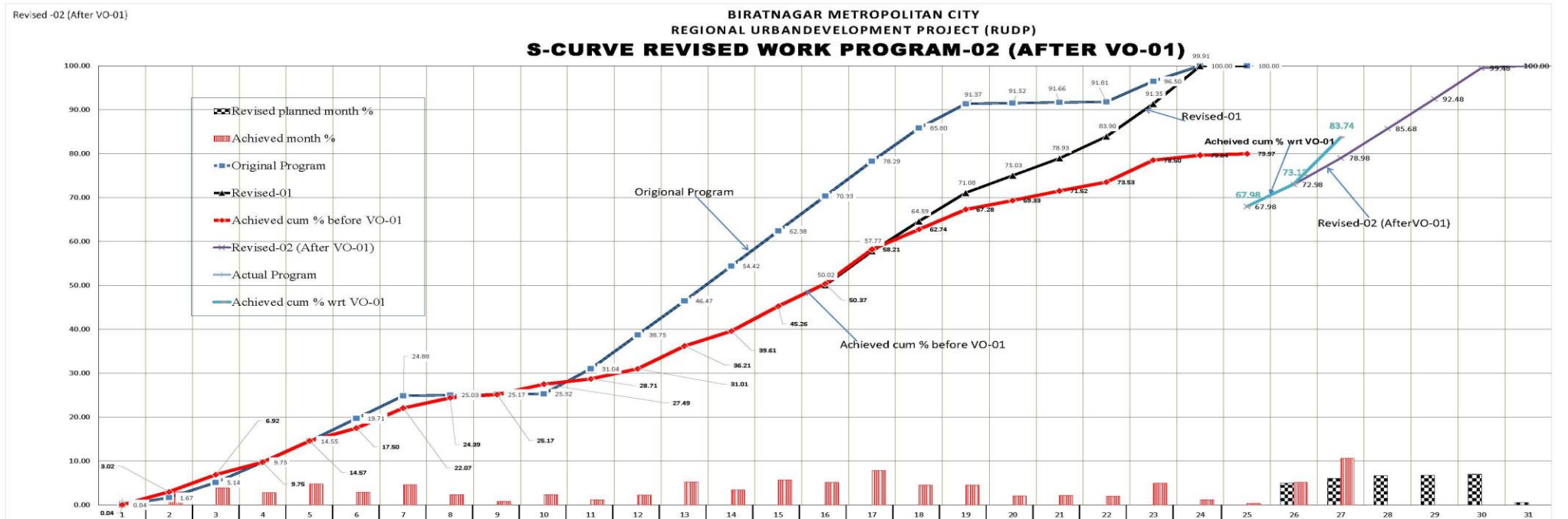
S.NO	LOCATION	TYPES OF WORK	TYPES OF WORKERS	LABOUR		COMPOSITION		ETHNIC COMPOSITION							
				SKILLED	UNSKILLED	MALE	FEMALE	JANJATI	DALIT	MUSLIM	MADHESI	BRAHMIN/CHHETRI			
22	T118	Drain	LOCAL												
			NON LOCAL	3	10	13	0	0	0	8	5	0			
			INDIAN												
			TOTAL	3	10	13	0	0	0	8	5	0			
19	R16	Electrical Work	LOCAL												
			NON LOCAL	4	12	16	0	4	6	0	6	0			
			INDIAN												
			TOTAL	4	12	16	0	4	6	0	6	0			
LABOUR CLASS				LABOUR		COMPOSITION		ETHNIC COMPOSITION							
			SKILLED	UNSKILLED	MALE	FEMALE	JANJATI	DALIT	MUSLIM	MADHESI	BRAHMIN/CHHETRI				
		LOCAL	18	77	95	0	9	11	0	75	0				
		NON LOCAL	77	276	333	20	66	68	48	171	0				
		INDIAN	0	0	0	0	0	0	0	0	0				
		TOTAL	95	353	428	20	75	79	48	246	0				



ANNEX-5: S-Curve

ATTACHED – January 2020





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	4.60	4.80	5.17	5.17	0.15	0.15	0.15	5.71	7.72	7.72	7.95	7.96	7.96	7.51	5.57	0.15	0.15	0.15	4.69	3.51	0.00									
Original Planned Cum %	0.04	1.67	5.14	9.75	14.55	19.71	24.88	25.03	25.17	25.32	31.04	38.75	46.47	54.42	62.38	70.33	78.29	85.80	91.37	91.52	91.66	91.81	96.50	100.00	100.00								
Achieved month %	0.04	2.98	3.90	2.83	4.82	2.93	4.57	2.32	0.78	2.32	1.22	2.30	5.20	3.40	5.65	5.11	7.84	4.53	4.54	2.05	2.19	2.01	4.97	1.14	0.33	5.14	10.62						
Achieved Progress Cum %	0.04	3.02	6.92	9.75	14.57	17.50	22.07	24.39	25.17	27.49	28.71	31.01	36.21	39.61	45.26	50.37	58.21	62.74	67.28	69.33	71.52	73.53	78.50	79.64	79.97	73.12	83.74						
Revised Planned Month %																4.76	7.75	6.82	6.49	3.95	3.90	4.97	7.45	8.56	0.090								
Revised Planned Cum %																50.02	57.77	64.59	71.08	75.03	78.93	83.90	91.35	99.91	100.00								
Revised Planned Month % after VO-1																										5.00	6.00	6.70	6.80	7.00	0.52		
Revised Planned Cum After VO-01 %																										67.98	72.98	78.98	85.68	92.48	99.48	100.00	
Revised planned month Amount in 100000																1099.89	1790.79	1575.90	1499.65	912.73	901.17	1148.42	1721.47	1977.96		1221.62	1465.94						
Achieved Month Amount in 100000																1180.77	1811.59	1046.75	1049.06	473.69	506.04	464.45	1148.42	263.42		1255.82	2594.71						
Revised planned Cum Amount in 100000																11558.80	13349.59	14925.49	16425.14	17337.86	18239.04	19387.45	21108.93	23086.89		17830.72	19296.66						
Achieved Cum Amount in 100000																11639.67	13451.26	14498.01	15547.07	16020.76	16526.81	16991.26	18139.68	18403.10		17864.92	20459.64						



Annex-6: Master Plan of RUDP Project



