



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



July 2018

Biratnagar Metropolitan City (BMC), Nepal

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EXECUTIVE SUMMARY

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

1. **Introduction/ Background-** It provides brief Account of 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 brief Account of 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 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 being 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. Having said that, the Progress may get affected by unpredicted events frequently occurring in case of our Country Nepal so such events are also enlisted for viewing the reasons behind affected Progress.
6. **Details of Pre Cast Activities-** Details of Precast activities are also provided in this Chapter in order to demonstrate the Progress by the Contractor. Since in Urban Sector the Work is required to conduct in speedy manner, Precast work is best alternate to be provided. Hence, the details of Precast activities have been provided in order to determine whether the Contractor is able to meet the Schedule or not.
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.



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 August 2017.

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

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



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

General Features	
Name of Project	Regional Urban Development Project(RUDP)
Executing Agency	Government of Nepal,
	Ministry of Urban Development
	Department of Urban Development and Building Construction (DUDBC)
Implementing Agency	Biratnagar Metropolitan City, Biratnagar
Funded By	Asian Development Bank & Government of Nepal
Package	Construction and Completion of Sewerage, Drainage, Road, Footpath and Road furniture works
Contract No.	RUDP/ICB/BRT/2
Location	Biratnagar Metropolitan City, Biratnagar
Consultant	Building Design Authority (P) LTD in Joint Venture With B.N. consultancy Pvt and PLUS Engineers and Architects (P) Ltd Kathmandu.
Date of Sign of Design and Supervision Consulting Service	28th August 2017
Date of Commencement of Design and Supervision Consulting Service	6th September 2017
Date of Completion	5th September 2020
Contractor	ZHONGHENG Construction Group International Engineering Co Ltd. Beijing, China.
Date of Agreement Made	10 th October 2017
Date of Commencement	2 nd November 2017
Date of Completion	1 st November 2019
Contract Amount including PS and VAT	NRs. 2,611,092,249.63
Progress	
Road Rehabilitation (Asphalt)	19.12%
Sewer Line	40.79%
Storm Drain	87.3 %
Road Side Drain	65.11%
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, the consultant is not able to process for design of Integrated Solid Waste Management (ISWM) as per discussion.
Physical Progress up to date	Planned : 25.17% , Actual : 25.18%; Lead(+) or Lag(-) by +0.01% S curve attached
Financial Progress up to date	In Percentage: 22.84%, In Figure: NRs. 596,339,691.11(including VAT,PS and Price Adjustment) In Words: NRs. Five Hundred Ninety Six Million Three Hundred Thirty Nine Thousand Six Hundred Ninety One and Paise Eleven Only.



3. SUMMARY OF PROGRESS STATUS OF ALL MAJOR COMPONENTS

S.No	Description	Unit	BoQ Quantity	Progress up to date	Remaining	Progress Status expressed in %	Remarks
1	Sewer Line						
a	HDPE/RCC	m	20,082.00	8,191.00	11,891.00	40.79%	
b	Manhole	No.	656.00	276.00	380.00	42.07%	
2	Storm Water Drain						
a	RCC Drain	m	652.89	570.00	62.89	87.30%	
b	Piles	No.	132.00	138.00	(6.00)	100.00%	Exceeded
3	Road						
a	Subgrade	m	73,860.00	23,804.65	49,281.35	32.23%	
b	Subbase	m	73,860.00	21,042.85	52,043.15	28.49%	
c	Base	m	73,860.00	18,075.85	55,010.15	24.47%	
d	Prime	m	73,860.00	14,119.20	58,966.80	19.12%	
e	Asphalt	m	73,860.00	14,119.20	58,966.80	19.12%	
4	Road Side Drain	m	26,050.00	16,960.25	9,089.75	65.11%	

3.1 SUB PROJECT COMPONENTS

3.1.1 SEWER LINES

Surveying works going on after identifying the all sewer lines i.e. T1, T2, T3, and T4. Production of manhole cover and precast are also going on.

Table 1: PROPOSED SEWER LINES

S. NO.	Description	Unit	Original Quantity
1	Sewerage Pipe Supply and Installation	m	20,082.00



S. NO.	Description	Unit	Original Quantity
	Reinforced Concrete Pipe laying and jointing		2241.00
	Line T2 (Secondary)	m	206.00
	Line T3 (Trunk)	m	1905.00
	Line T4 (Trunk)	m	130.00
	HDPE laying and jointing	m	17,841.00
	Line T1 (Secondary)	m	1,825.00
	Line T2 (Secondary)	m	3,927.00
	Line T3 (Secondary)	m	9,997.00
	Line T4 (Secondary)	m	2,902.00
2	Manhole (Brick / RCC)	no.	685.00
3	Sewer Inlet	no.	1,010.00
4	House Connection	no.	3,784.00
5	Reinstatement of Roads	km	73.86
6	Road side Drain	Km	26.05
7	Storm Water Drain	m	652.8

Table: - 2 PHYSICAL PROGRESS IN SEWER LINES till July, 2018

SN	Locations	BoQ		Up to Pre Month		This month		Total to date		Progress %
		Length (m)	Manhole (no)	Length(m)	Manhole (no)	Length (m)	Manhole (no)	Length (m)	Manhole (no)	
1	Hume pipe(T2)	206.00	6.00							
2	Hume pipe(T3)	1,905.00	58.00	292.00	6.00			292.00	6.00	
3	Hume Pipe (T4)	130.00	4.00	326.00	11.00			326.00	11.00	
	Subtotal in (m)	2,241.00	68.00	618.00	17.00	-	-	618.00	17.00	
1	HDPE(T1)	1,825.00	57.00	1,037.00	30.00			1,037.00	30.00	
2	HDPE(T2)	3,927.00	147.00	2,828.00	107.00	168.00	6.00	2,996.00	113.00	



SN	Locations	BoQ		Up to Pre Month		This month		Total to date		Progress %
		Length (m)	Manhole (no)	Length(m)	Manhole (no)	Length (m)	Manhole (no)	Length (m)	Manhole (no)	
3	HDPE(T3)	9,997.00	316.00	2,771.00	97.00			2,771.00	97.00	
4	HDPE(T4)	2,092.00	68.00	769.00	19.00			769.00	19.00	
	Subtotal in (m)	17,841.00	588.00	7,405.00	253.00	168.00	6.00	7,573.00	259.00	
	Total	20,082.00	656.00	8,023.00	270.00	168.00	6.00	8,191.00	276.00	40.79%
	Sewer Inlet	BoQ(no)		Up to Pre Month		This month		Total to date		Progress %
1	Sewer inlet	1,010.00				28.00		28.00		2.77
2	House connection	3,784.00								

3.2 STORM WATER DRAIN

The storm water drain CN2, and CN3 has been provisioned in Regional Urban Development Project (RUDP) .The Contractor has already started construction of storm water drain. The construction of drain works is going on and piling works have been completed. The detail of the progress is shown in the table below:

Table:-3 PROPOSED and PHYSICAL PROGRESS in STORM WATER DRAINS TILL July, 2018.

SN	Location	Proposed Length in (m)	Progress		Total till date (m)	Progress %
			Up to previous month in (m)	This month in (m)		
1	CN2-CN3 (Chyangh Baari Naalaa)	652.89	530	40	570	Construction of drain works going on
2	CN2-CN3 (Chyangh Baari Naalaa)	132 nos piles	138	-	138 nos	Piling works completed



3.3 ROADS AND LANES

Most of the roads/lanes in Biratnagar are in a poor state due to lack of periodic maintenance, and need improvement where as some of the roads are graveled and would benefit from upgrading. In the areas where drainage and sewerage works are proposed there will be significant impact on the existing roads. The Project has considered on design based on reinstatement, rehabilitation and upgrading of existing roads length 73.86 km. The Contractor has started detail survey work for upgrading the deteriorated pavement surface.

Table No:-4 PROPOSED and PHYSICAL PROGRESS of pavement works till July, 2018

SN	Road Number	Road Name	Proposed Length(m)	Actual Length(m)	Progress Length in (m)		Total till date	Progress %
					Upto previous month	This month		
Subgrade								
1	R3A	Madhumara Marg	600.00	600.00	600.00	-	600.00	(100%)Sub grade,
2	R42	Bhagwati Marg	218.00	218.00	218.00	-	218.00	(100%)Sub grade,
3	R104	VIP Marg	273.00	271.00	273.00	-	273.00	(100%)Sub grade
4	Rani site	Rani	4,023.00	2,315.00	2,315.00		2,315.00	(57.54%)Sub grade,
5	R37	Banglamukhi Marg	420.00	477.00	477.00	-	477.00	(100%)Sub grade,
6	R5	College Road	970.00	970.00	970.00	-	970.00	(100%)Sub grade,
7	R16	Satya Marg	604.00	604.00	604.00	-	604.00	(100%)Sub grade,
8	R21	Pratibha Marg	1,320.00	1,320.00	1,320.00	-	1,320.00	(100%)Sub grade,
9	R25	Devi Marg	599.00	580.00	580.00	-	580.00	(100%)Sub grade,
10	R24	Prabhat Marg	384.41	380.00	380.00	-	380.00	(100%)Sub grade,
11	R28	Pustakalaya Marg	635.00	635.00	635.00	-	635.00	(100%)Sub grade,



12	R27	Peepal Marg	810.00	810.00	810.00	-	810.00	(100%)Sub grade,
13	R26	Pasang Marg	617.00	654.00	654.00	-	654.00	(100%)Sub grade
14	B1	Kanchan Marg	1,172.94	1,173.00	1,173.00	-	1,173.00	(100%)Sub grade,
15	B2	Gauri Shankar Marg	2,777.83	2777.83.00	2,152.00	-	2,152.00	(77.5%)Sub grade,
16	B3	Keshaliya Marg	1,574.00	1574.00	1,574.00	-	1,574.00	(100%)Sub Grade ,
17	S11	Samrat Marg	660.00	660.60	660.00	-	660.00	(100%)Sub Grade,
18	S13		1,617.00	1,435.00	1,417.00	-	1,417.00	(87.63%)Sub Grade,
19	R114	Dharanidhar Marg	320.00	320.00	320.00	-	320.00	(100.00%) Sub Grade,
20	R12	Kanchha Dai Marg	1,192.00	1190.00	837.00	-	837.00	(70.21%)Sub Grade
21	R5a		370.00	-	370.00	-	370.00	(100%)Sub Grade
22	R113	Kavi Lekhnath Marg	420.00	736.00	736.00	-	736.00	(100%)Sub Grade
23	R65	Satghumti Marg	282.00	320.00	320.00	-	320.00	(100%)Sub Grade
24	R107		173.00	215.00	215.00	-	215.00	(100%)Sub Grade
25	R107a		50.00	-	50.00	-	50.00	(100%)Sub Grade
26	R22	Amar Marga	373.10	367.65	367.65		367.65	(100%)Sub Grade
27	R7	Manakamana Marg	814.00	242.00	242.00		242.00	(29.73%)Sub Grade
28	R64	Satya Narayan Marg	121.00	121.00	121.00		121.00	(100%)Sub Grade



29	R8		-	225.00	225.00		225.00	(100%)Sub Grade
30	N36		190	190.00	190.00		190.00	(100%)Sub Grade
31	R188	Shakti Marg	120	120.00	120.00		120.00	(100%)Sub Grade
32	R2	Main Road	-	300.00	300.00		300.00	(100%)Sub Grade
33	T3 Line 6A	Pandit Mrghnath Marg	220	220.00	220.00		220.00	(100%)Sub Grade
34	T2 Line 24C	Nava Jyoti Marg	205	205.00	205.00		205.00	(100%)Sub Grade
35	T2 Line 24D	Nava Jyoti Marg	210	210.00	210.00		210.00	(100%)Sub Grade
36	R63 (DSP Road)	DSP Road	420.00	420.00	420.00		420.00	(100%)Sub Grade
37	R90	Shakti Marg	450.00	380.00		380.00	380.00	(84%)Sub Grade
38	R77	Arniko Marg	80.00	80.00		80.00	80.00	(100%)Sub Grade
39	R76	Mitra Marg	270.00	270.00		270.00	270.00	(100%)Sub Grade
40	R183	Nava Jyoti Marg	240.00	240.00		240.00	240.00	(100%)Sub Grade
41	T1line 16B	Xenial Front	210.00	210.00		210.00	210.00	(100%)Sub Grade
42	T1line 16A	Xenial South	140.00	140.00		140.00	140.00	(100%)Sub Grade
43	Rani site B		600.00	520.00		520.00	520.00	(87%)Sub Grade
Subbase								
44	R24	Prabhat Marg	384.41	365.00	380.00	-	380.00	(99.00%)Su b Base



45	R25	Devi Marg	599.00	580.00	580.00	-	580.00	(96.83%)Sub Base
46	R26	Pasang Marg	617.00	580.00	654.00	-	654.00	(100%)Sub Base
47	R27	Peepal Marg	810.00	580.00	810.00	-	810.00	(100%)Sub Base
48	R28	Pustakalaya Marg	635.00	343.00	343.00	-	343.00	(54.00%)Sub Base
49	Rani site	Rani	4,023.00	-	1,702.00	-	1,702.00	(42.3%)Sub Base
50	R37	Banglamukh i Marg	420.00	477.00	471.00	-	471.00	(100%)Sub Base
51	R65		282.00	320.00	320.00	-	320.00	(100%)Sub Base
52	R42	Bhagwati Marg	218.00	218.00	218.00	-	218.00	(100%)Sub Base
53	R104	VIP Marg	273.00	271.00	273.00	-	273.00	(100%)Sub Base
54	B1	Kanchan Marg	1,172.94	1,110.00	1,173.00	-	1,173.00	(100%) subbase
55	B2	Gauri Shankar Marg	2,777.83	1,233.00	2,152.00	-	2,152.00	(77.47%) Sub Base
56	S11	Samrat Marg	660.00	504.60	660.00	-	660.00	(100%) Sub Base
57	S13		1,616.26	1,435.00	1,417.00	-	1,417.00	(187.63%))Subbase
58	R12	Kanchha Dai Marg	1,192.00	660.00	837.00	-	837.00	(70.22%)Sub Base
59	R5	College Road	970.00	603.00	970.00	-	970.00	(100.00%)S ub Base
60	R16	Satya Marg	604.00	580.00	604.00	-	604.00	(100%)Sub Base



61	R21	Pratibha Marg	1,320.00	1,320.00	950.00	-	950.00	(71.96%)Sub Base
62	B3	Keshaliya Marg	1,574.00	560.00	1,574.00	-	1,574.00	(100%)Sub Base
63	R3A	Madhumara Marg	600.00	600.00	600.00	-	600.00	(100%)Sub Base
64	R107		173.00	215.00	215.00	-	215.00	(100%)Sub Base
65	R107a		50.00	-	50.00	-	50.00	(100%)Sub Base
66	R5a		370.00	-	370.00	-	370.00	(100%)Sub Base
67	R22	Amar Marga	373.10	367.85	367.85		367.85	(100%)Sub Base
68	R7	Manakamana Marg	814.00	242.00	242.00		242.00	(29.73%)Sub Base
69	R64	Satya Narayan Marg	121.00	121.00	121.00		121.00	(100%)Sub Base
70	R8		-	225.00	225.00		225.00	(100%)Sub Base
71	N36		-	190.00	190.00		190.00	(100%)Sub Base
72	R188	Shakti Marg	-	120.00	120.00		120.00	(100%)Sub Base
73	R2	Main Road	-	300.00	300.00		300.00	(100%)Sub Base
74	T3 Line 6A	Pandit Mrghnath Marg	-	220.00	220.00		220.00	(100%)Sub Base
75	T2 Line 24C	Nava Jyoti Marg	-	205.00	205.00		205.00	(100%)Sub Base
76	T2 Line 24D	Nava Jyoti Marg	-	210.00	210.00		210.00	(100%)Sub Base
77	R63 (DSP Road)	DSP Road	420.00	420.00	420.00		420.00	(100%)Sub Base



78	R90	Shakti Marg	450.00	380.00		380.00	380.00	(100%)Sub Base
79	R77	Arniko Marg	80.00	80.00		80.00	80.00	(100%)Sub Base
80	R76	Mitra Marg	270.00	270.00		270.00	270.00	(100%)Sub Base
81	R183	Nava Jyoti Marg	240.00	240.00		240.00	240.00	(100%)Sub Base
82	T1line 16B	Xenial Front	210.00	210.00		210.00	210.00	(100%)Sub Base
83	T1line 16A	Xenial South	140.00	140.00		140.00	140.00	(100%)Sub Base
84	R114	Dharanidhar Marg	560.00	560.00		560.00	560.00	(100%)Sub Base
85	R113	Kavi Lekhnath Marg	740.00	740.00		740.00	740.00	(100%)Sub Base
86	Rani site B		600.00	520.00		520.00	520.00	(86%)Sub Base
Base								
87	B1	Kanchan Marg	1,172.94	1,110.00	1,106.00	-	1,106.0 0	(98.04%) Base
88	B2	Gauri Shankar Marg	2,777.83	1,233.00	2,152.00	-	2,152.0 0	(100%) Base
89	B3	Keshaliya Marg	1,574.00	560.00	1,627.75	-	1,627.7 5	(100%) Base
90	S11	Samrat Marg	660.00	504.60	504.60	-	504.60	(100%) Base
91	S13		1,617.00	1,435.00	1,417.00	-	1,417.0 0	(87.63%) Base
92	R114	Dharanidhar Marg	320.00	560.00	320.00	-	320.00	(100.00%) Base
93	R12	Kanchha Dai Marg	1,192.00	660.00	837.00	-	837.00	(70.22%) Base
94	R113	Kavi Lekhnath Marg	420.00	736.00	736.00	-	736.00	(100%) Base



95	R5	College Road	970.00	603.00	970.00	-	970.00	(100%) Base
96	R16	Satya Marg	604.00	580.00	604.00	-	604.00	(100%) Base
97	R21	Pratibha Marg	1,320.00	1,320.00	1,320.00	-	1,320.00	(100%)Base
98	R24	Prabhat Marg	384.41	365.00	365.00	-	365.00	(100%) Base
99	R25	Devi Marg	599.00	580.00	562.00	-	562.00	(96.82%) Base
100	R26	Pasang Marg	617.00	580.00	580.00	-	580.00	(94%) Base
101	R27	Peepal Marg	810.00	580.00	580.00	-	580.00	(71.61%) Base
102	R28	Pustakalaya Marg	635.00	343.00	635.00	-	635.00	(54.44%) Base
103	R37	Banglamukhi Marg	477.00	477.00	471.00	-	471.00	(100%) Base
104	R3A	Madhumara Marg	600.00	600.00	600.00	-	600.00	(100%) Base
105	R42	Bhagwati Marg	218.00	218.00	218.00	-	218.00	(100%) Base
106	R104	VIP Marg	273.00	271.00	273.00	-	273.00	(100%) Base
107	Rani	Rani	4,023.00	-	1,702.00	-	1,702.00	(42.30%) Base
108	R22		373.10	367.85	367.85	367.85	735.70	(100%)Base
109	R7		814.00	242.00	242.00	242.00	484.00	(29.73%) Base

Table No:-4.1 Road improvement Works (Work Progress till the date)

SN	Description	Unit	Proposed	Total Up to Previous Month	This Month	Total Up to this Month	Progress
1	Subgrade	m	73,860.00	21,964.65	1,840.00	23,804.65	32.23%
2	Sub Base	m	73,860.00	19,202.85	1,840.00	21,042.85	28.49%
3	Base	m	73,860.00	18,075.85		18,075.85	24.47%
4	Prime	m	73,860.00	13,819.20	300.00	14,119.20	19.12%
5	Asphalt	m	73,860.00	13,819.20	300.00	14,119.20	19.12%



3.4 ROAD SIDE DRAIN

Table No:-4a PROPOSED and PHYSICAL PROGRESS of Road side drain works till July, 2018.

SN	Road Number	Road Name/ Location	Proposed Length(m)	Progress Length in (m)		Total to date	Progress %
				Previous month	This month		
1	B1	Kanchan Marg	-	90.00	-	90.00	100%
2	R29	Shanti Marg	620.00	513.40		513.40	83%
3	N36		-	371.75		371.75	100%
4	R8	APF	540.00	460.00		460.00	85%
5	R7	Pasang Marg and Pipal Marg	480.00	180.00		180.00	38%
6	R63	DSP Road		397.00		397.00	100%
7	R9	Baglamukhi path	240.00	208.00		208.00	87%
8	S13		110.00	110.00		110.00	100%
9	N33	Parichaya Marga	-	70.00		70.00	100%
10	R28	Pustakalaya Marg	640.00	278.00		278.00	43%
11	R90	Shakti Marg	620.00	678.50		678.50	100%
12	R114	Dharanidhar Marg	530.00	624.65		624.65	100%
13	R11	Om Shiv Marg		246.90	130.00	376.90	100%
14	R18		762.00	762.00		762.00	100%
15	R17		680.00	721.70		721.70	100%
16	R113	Kavi Lekhnath Marg	-	312.45		312.45	100%
17	R77	Arniko Marg	160.00	160.00		160.00	100%
18	R76	Mitra Marg	540.00	548.10		548.10	100%
19	N9	Devi Marga	445.00	445.00		445.00	100%
20	N4		250.00	292.75		292.75	100%
21	R33	Tarun Marg	354.00	332.60		332.60	94%
22	R36	Gaurav Marg	450.00	432.90		432.90	96%



SN	Road Number	Road Name/ Location	Proposed Length(m)	Progress Length in (m)		Total to date	Progress %
				Previous month	This month		
23	R86	Janpath Marg	400.00	367.40		367.40	92%
24	R183	Nava Jyoti Marg	440.00	390.00	32.10	422.10	96%
25	R7a		132.00	130.00		130.00	98%
26	Rani site	Rani B	340.00	552.95	146.65	699.60	100%
27	Rani site	Rani A	200.00	270.00		270.00	100%
28	N3		450.00	190.00		190.00	42%
29	N5		76.00	130.00		130.00	100%
30	R21	Binayak Marga	207.00	260.00	100.00	360.00	100%
31	R2	Main Road		858.03	276.97	1,135.00	100%
32	Xenial Front (T1L16B)		440.00	411.35		411.35	93%
33	Xenial South(T1L16A)			152.05	166.55	318.60	100%
34	R75	Tintoliya Marga	135.00	255.00		255.00	100%
35	R122	Amar Marga	268.00	500.95		500.95	100%
36	N5			50.00	80.00	130.00	100%
37	R7b	Siddhartha Marga		70.00	40.00	110.00	100%
38	R12	Sukra Path		50.00	60.00	110.00	100%
39	R42	Jahada Marga		90.00	60.00	150.00	100%
40	R6	Shanti Marg		376.15	303.85	680.00	100%
41	R21(a)	DharamBadh Junction		160.00		160.00	100%
42	R78	Binayak Marga		70.00		70.00	100%
43	R188	Shakti Marg		115.60		115.60	100%
44	R40	Brahma Kumari Marga		440.00	160.00	600.00	100%
46	Rani Site C			97.50		97.50	100%
47	Ranit Site D			111.45	20.00	131.45	100%
49	T3L21	Moti Marga			570.00	570.00	
50	T3L39	Gaheli Marga			390.00	390.00	



SN	Road Number	Road Name/ Location	Proposed Length(m)	Progress Length in (m)		Total to date	Progress %
				Previous month	This month		
51	T2L27	Bhumi Prashasan Junction			90.00	90.00	
			26,050.00	14,334.13	2,626.12	16,960.25	65.11%

3.5 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.

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.

Disposal of Spoil and Construction Waste.

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

Provision and maintenance of Camps/Office/Stores/Equipment.

Various works defined under this item are related to provision a maintenance camps for work person and employees, Contractor's site office, stores equipment yards and workshops. The camps must be adequate rain roof, Spacious, airy, and hygienic with proper lighting and material storage facilities. The area shall be kept neat and clean etc.

Provision and maintenance of Toilets.

Provision of toilets for labour 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 of pit type latrines. Sufficient water must be provided and maintained in the toilets.

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 shall be filled to be the



crusher to control emission of dust from the plant etc.

Hot mix 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.

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 environmental improvement project and mainly constitutes works on 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, 2054 BS, 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 on IEE was submitted and MoUD had approved the IEE on May 14, 2013.

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 regularly and a standard site specific environmental monitoring checklist was used to record the present status of the project and verified whether or not the EMP is compiled. A sample of environmental checklist is attached herewith as Annex.

3.6 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 labours have been deployed in civil construction works (i.e. in Road side drain / Sub grading works). The Engineer has issued the format of Social Safeguard Monitoring plan which is attached here with.

Safeguard/ GESI Component**Community Awareness:**

Conduct regular Community awareness Consultations within Project Areas to build awareness on Project Objectives, Activities and implementation during site observation, Monitoring and Meetings. Different site visit has been conducted during May, 2018 such as DDC Pre cast



yard, Chyangbari Naala Biratnagar-16, Asphalt work at Sai Marg, Sewer Line construction work at Hanumandas Road and Asphalt Plant at Rani Site. Except of Minor, no any major conflict has been found during construction work. The visit was conducted jointly with Environment Safeguard Expert and Social Safeguard Expert.

Grievance Redresses Mechanism:

Total Four minor grievances have been registered in the GRC desk during May, 2018. The GRC committee has been addressed immediately registered Grievances and concerns raised by the concerned Stakeholders including Project beneficiaries.

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 numbers at Construction sites, thus Contractor was instructed as follow:

- i. Encourage to Local female Employment as Labor and skilled man power.
- ii. Manage separate Camp and necessary facilities for female workers to encourage of female Employment.

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 dated 30th May, 2018 and 31st May, 2018 following issues were discovered.

- i. The use of Personal Protection Equipment (PPE) were in very few usage thus the issue was considered unsatisfactory.
- ii. Proper Barricade was not done as well as caution signs and signals were not sufficiently used in Drainage and Sewer work Locations.

Considering above mentioned issues, the Contractor was instructed to use PPE, Barricades and proper signs and signals at working site. The implementation of Social and Environmental Safeguard measures during this month was found partially satisfactory.

3.7 FINANCIAL PLAN

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

3.7.1 DISBURSEMENT RECORDS IN CONSTRUCTION

SN	Description of Payment	Total Bill Amount with VAT & PS	Remark
Table:-5 DISBURSEMENT RECORDS in CONSTRUCTION			
1	IPC 01	339,105,000.00	Mobilization Advance.
	IPC 02	265,347,611.64	
	IPC 03	330,992,079.47	
	Grand Total =	935,445,691.11	

4 OBJECTIVES AND SCOPE OF WORKS

4.1 OBJECTIVES



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

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

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

4.2 SCOPE OF WORKS

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

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

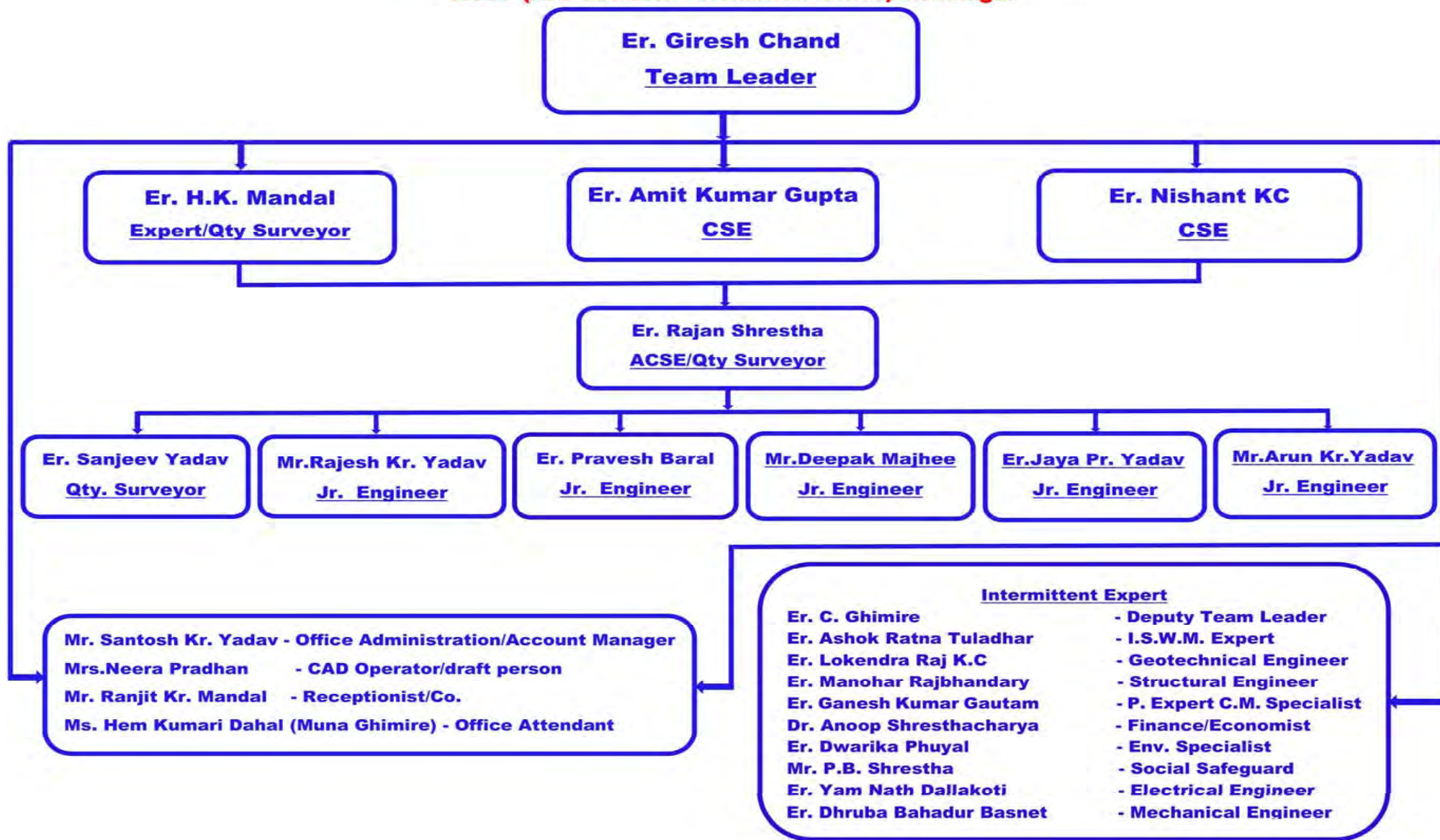
4.3 ORGANIZATION AND STAFFING

Attached



ORGANIZATION CHART

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



4.4 CONSULTANT'S ACTIVITIES IN CONSTRUCTION PHASE

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

Table 6: CONSULTANT'S STAFF at Project Site, Biratnagar

SN	Name	Designation	Joining date	Remarks
1	Giresh Chand	Team Leader	6 th Sep 2017	
2	Ashok Ratna Tuladhar	ISWM (Designer)	6 th Sep 2017	Intermittent
3	Dwarika Phuyal	Environmental Safeguard Expert	1 Nov 2017	Intermittent
4	Prakash Bhakata Shrestha	Social Safeguard Monitoring Expert	26 th dec-2017	Intermittent
5	Hare Krishna Mandal	Expert/Quantity surveyor	1 st Nov 2017	
6	J.P Yadav	Construction Supervision Engineer	1 st March 2018	Discontinued the service since 25 th April, 2018.
7	A.K Gupta	Construction Supervision Engineer	1 st March 2018	
8	Nishant K.C.	Construction Supervision Engineer	2 nd April 2018	
9	Rajan Shrestha	ACSE/Quantity Surveyor	7 th Nov 2017	
10	Rajesh Kumar Yadav	Junior Engineer-1	6 th Sep 2017	
11	Sanjeev Yadav	Qty Surveyor	5 th Nov 2017	
12	Santosh Kumar Yadav	Office Administration/Account Manager	6 th Sep 2017	
13	Hem Kumari Dahal (Muna Ghimire)	Office Attendant	6 th Sep 2017	
14	Ranjit Kumar Mandal	Receptionist	10 th Dec 2017	
15	Pravesh Baral	Junior Engineer-2	10 th Dec 2017	
16	J.P Yadav	Junior Engineer-3	1 st March 2018	
17	Deepak Majhi	Junior Engineer-4	1 st March 2018	
18	Arun Kumar Yadav	Junior Engineer-5	16 th March 2018	
19	Neera Pradhan	CAD operator/Draft Person	10 th Dec 2017	
20	Ramji Ghimire	Driver	1st Dec-2017	



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.

As per Clause 1.8.2 Engineer has given early notice to the contractor for identification and sample of all construction material before starting any kind of works. Contractor has identified and submitted their requisition for sampling of materials. Sampling works of all construction materials have completed. Team leader has recommended their letter for required tests for authorized organizations. Some test reports have been submitted by the Contractor which has been tested from outside of authorized organization. Engineer has emphasized 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 two production yards for pre-cast item (kerb stone, drain cover slab, man whole etc.) and production is going on.

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

5.2 TL discussed during monthly progress meeting and given guidance for making certain modification and review on submitted work program and QAP. Contractor agreed for review/modification and resubmission on work program / QAP.

5.2 Progress Achieved Till date

Month	Target This Month		Achievement This Month		Leading		Lagging		Remarks
	Monthly	Accumulated	Monthly	Accumulated	Monthly	Accumulated	Monthly	Accumulated	
May-18	5.17%	24.88%	4.57%	22.07%			-0.60%	-2.81%	Lagging
June-18	0.15%	25.03%	2.32%	24.40%	2.18%			-0.63%	Lagging
July-18	0.15%	25.17%	1.63%	26.03%	1.48%	0.86%			Leading

5.3 Key Events

The consultant has noted the following key dates for the month of July, 2018.

Table 8: KEY DATES of EVENTS / ACTIVITIES

S. No.	Date	Activities/Events	Remarks
	Weather Reports		
1	Tuesday, July 24, 2018	Activities Disturbed due to Rainfall	
2	Wednesday, July 25, 2018	Activities Disturbed due to Rainfall	
3	Sunday, July 29, 2018	Activities Disturbed due to Rainfall	
4	Monday, July 30, 2018	Activities Disturbed due to Rainfall	
5	Tuesday, July 31, 2018	Activities Disturbed due to Rainfall	
	Strike		
6		No Strike registered during the month of July	
	Site visits		
7		Officials of Project Implementation Unit(PIU) have conducted frequent visit to the site during the month of July, 2018	



S. No.	Date	Activities/Events	Remarks
8		Due to Socio Environment Problem, the consultant is not able to process for design of Integrated Solid Waste Management (ISWM) as per discussion. Employer took initiation to solve the problem of ISWM.	

Weather Reports sourced by:

<https://www.timeanddate.com/weather/nepal/biratnagar/historic?month=6&year=2018>

Station Located at Biratnagar Airport



6 DETAILS OF PRE CAST ACTIVITIES.

Table 9: PHYSICAL PROGRESS in PRODUCTION OF PRECAST ITEMS till, July, 2018

Physical Progress till July 2018							
S.N.	Description	Unit	Progress			Total to Date	Remarks
			BoQ	Up to Previous month	This Month		
1	Precast Slab	No		27,599.00	2007.00	29606.00	Under progress
2	Kerb Stone	Rm	147,729.68	38,997.00	14188.00	53185.00	36%

Table 10: PHYSICAL PROGRESS in PRODUCTION OF RCC Hume Pipe at Itahari till, July, 2018

Physical Progress till July- 2018							
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						



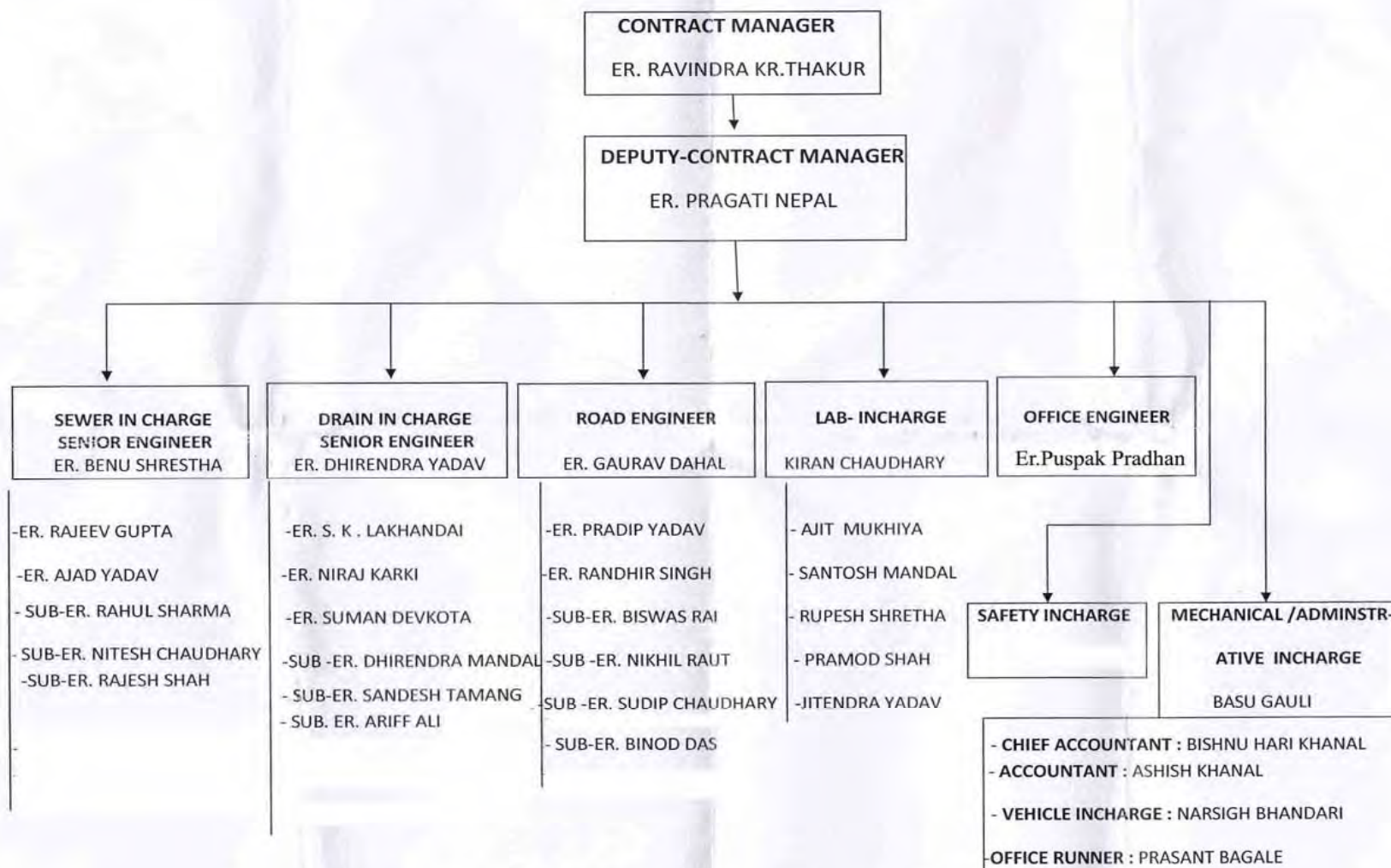
Table 11: PHYSICAL PROGRESS in PRODUCTION OF HDPE Pipe till, July, 2018

Physical Progress till July- 2018							
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	1,987.20	-	1,987.20	Under process
2	HDPE Pipe	200.00	16,656.00	10,500.00	-	10,500.00	
3	HDPE Pipe	250.00	115.00	450.00	-	450.00	
	Total						

Table 12: PHYSICAL PROGRESS in PRODUCTION OF UPVC Pipe till, July, 2018

Physical Progress till July- 2018							
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	4,500.00	-	4,500.00	
2	UPVC Pipe	200.00	5,050.00	2,500.00	1,500.00	4,000.00	

**ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD-BIRATNAGAR
SITE ORGANIZATION CHART(RUDP-BIRATNAGAR)**



7 CONTRACTOR'S MANPOWER

Table 13: CONTRACTOR'S KEY STAFFS in July, 2018

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	-	18	
9	Accountant	-	2	
10	Lab Technician	-	1	
11	Store Keeper	-	2	
12	Vehicle Incharge	-	2	
13	Skilled Labors		39	
14	Unskilled Labors		159	

As per sub Clause no. 6.7 GCC/ PCC regarding Health and Safety, the Contractor needs to appoint an Accident Prevention Officer. Accident Prevention Officer has left the site beyond dated 19th July, 2018 whom the Consultant has asked for replacement.



8 CONTRACTOR'S EQUIPMENT

Table 12: CONTRACTOR'S EQUIPMENT

S.No	Equipment Type and Characteristics	Min Number required as per Contract	ZHONGHENG CONSTRUCTION Group	Remarks
1	Excavator (200 above)	5	2	Backhoe loader-9 nos.
2	Crane (10 ton capacity)	3	-	
3	Asphalt plant of adequate capacity	1	1	
4	Asphalt pavers	1	1	
5	Vibrating roller	2	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	2	
9	Track Dozer (120 to 180 HP)	1	-	
10	Bitumen distributor (4 to 6 Kilo litre)-	1	1	
11	Water browser (minimum 5000 Litres)	3	8	
12	Chips spreader	1	-	
13	Bitumen decanter minimum 4000 Litres. (preheating container)	2	2	
14	Air compressor	2	2	
15	Tipping Trucks	15	10	
16	Service vehicle	2	5	
17	Survey equipment (Total station with accessories)	1	1	
18	Theodolite	2	-	
19	Levelling	5	12	
20	Mobile Generator 15-20 Kva	3	7	
21	Mixer Machine	6	7	
22	Concrete Batching Plant	1	-	



S.No	Equipment Type and Characteristics	Min Number required as per Contract	ZHONGHENG CONSTRUCTION Group	Remarks
23	Concrete pump	1	-	
24	Drain cleaner/ Nala cleaner	2	-	
25	Broomer	-	2	
26	Motor Bike	-	10	
27	Plate Compactor	-	6	
28	Water Pump	-	6	

WORK PLAN FOR THE NEXT MONTH

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

- Detail Surveying works at various Road sections.
- Asphalt Concrete in Road section R90/Rani/B2/R3
- Precast production works at contractor's yard.
- Side drain works.
- Laying of kerb Stone and cover slab.
- Sewer inlet and House Connection works.



ANNEX-1: Photographs of July, 2018





Subbase work at R2



Sub base work at T1L16B (Xenial Front)



RCC Drain works at R6



Drain work at T2L27



Concreting of Top Slab at Chyangbari Nala



Concreting work at Chyangbari Nala



Sewer inlet works at R63 (DSP Road)



Existing Drain clearance work



Joint crushing of cube mould at Lab



Joint surveying work

ANNEX-2: Minutes of Meeting July, 2018



MINUTES OF MEETING-14

Contract: Regional Urban Development Project (RUDP), Biratnagar

Date: 05 July 2018

Time: 04:00 PM

Venue: RUDP Consultant Office, Bargachhi, Biratnagar

Attendance

Employer:		
1	Mr. Bharat Kumar Nuepane	Project Manager (PM), PIU
2	Mr. Prakash Narayan Chaudhary	Deputy Project Manager (DPM), PIU
Consultant:		
1	Mr. Giresh Chand	Team Leader, DSC
2	Mr. Hare Krishna Mandal	Quantity Surveyor Expert, DSC
3	Mr. Nishant K.C.	Construction Supervision Engineer, DSC

Viewing the Rainfall of Monsoon, the following discussion/decision has been taken regarding Road maintenance:

S. NO.	Minutes	Action by
1	Mr. Giresh Chand, TL welcomed all the Participants and elaborated on Present Status of the Project stating the Progress Graph of the Project. Road completed (Asphalt)-13.819 Km Sewer Line completed- 12.059 Km Road Side Drain completed- 11.487 Km Storm Water Drain completed- 530 m. As a whole 24.40 %.	The Employer, Consultant & Contractor
	Mr. Giresh Chand, TL further emphasized stating that viewing the Monsoon Period this year, the Contractor was instructed to make every possible attempt to make the Road movable throughout this Monsoon Period.	
	Mr. Bharat Kumar Neupane, PM, stated that he was also considerate regarding movability of Traffic in order to facilitate the Public of Biratnagar. He also showed his concern regarding Road Maintenance at such locations wherever movability was affected. It was also stated that the Side Drain as well as storm water Drain should be cleared so that any type of stagnant water damaging the Pavement surface would be avoided.	The Employer, Consultant & Contractor
	Mr. Giresh Chand, TL stated that in such case he had instructed the Contractor to fill the Road surface with Ordinary filling as there was no provision of Road Maintenance stated in Bill of Quantities. Regarding stagnant water on the Road surface he stated that the Contractor was instructed through many correspondences to clear the Road side Drain as well as Storm water Drain in order to avoid any type of stagnant water on the Road Surface Damaging the Pavement Structures which the Contractor was carrying out but in very slow pace.	The Employer, Consultant & Contractor



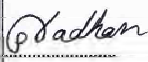



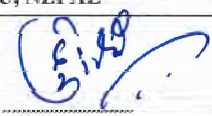
S. NO.	Minutes	Action by
	Mr. Bharat Kumar Neupane, PM, stated that Ordinary Filling was not a remedial Measures as continuous Maintenance would be required with continuous Monsoon Rainfall. Further it was stated that the Graveled Material would be remedial Measures.	
	Mr. Giresh Chand, TL, replied that Road Maintenance with Graveled Materials would be instructed to the Contractor but the problem was provisions of payment as there was no provision of payment in Contract for such types of Maintenance.	
	Mr. Bharat Kumar Neupane, PM stated that the arrangement of payment would be made from any source either it would be from the Provisions made in BoQ or others. He further added that Mayor Mr. Bhim Parajuli was also considerate about Road Maintenance due to which Mayor had instructed PIU for prolonged bearable Maintenance and Gravel was only a solution to Maintenance whereas regarding payment he would any how provision for.	
	Mr. Giresh Chand, TL, thanked all the participants and closed the meeting.	



Handwritten signature and initials.

ANNEX-3: Laboratory Test Results of July, 2018
Attached



REGIONAL URBAN DEVELOPMENT PROJECT													
Biratnagar Metropolitan City													
Contract No:- RUDP/ICB/BRT-02													
Summary Sheet of Monthly Test Report of Concrete Sand													
											Month	July	
											Year	2018	
											Type of Material	Concrete Sand	
S.n.	Lab. Ref no.	Date of Test	Location of Sample	Source of Sample	Sieve Size in mm / % Passing by weight							Clay Content %	Remarks
					10	4.75	2.36	1.18	0.600	0.300	0.150		
1	RUDP-CS-110	2-Jul-18	R-2	Chisang Khola	100.00	92.54	67.20	53.47	49.75	48.71	3.64	0.42	
2	RUDP-CS-111	3-Jul-18	R-5	Chisang Khola	100.00	95.32	67.20	54.71	49.47	48.72	5.24	0.29	
3	RUDP-CS-112	5-Jul-18	T3L39	Chisang Khola	100.00	91.63	77.83	42.72	29.48	16.56	4.95	0.52	
4	RUDP-CS-113	6-Jul-18	R-90	Chisang Khola	100.00	93.00	76.47	52.73	27.91	17.63	6.64	1.70	
5	RUDP-CS-114	8-Jul-18	R-2	Chisang Khola	100.00	95.99	66.27	54.88	34.45	8.00	1.57	0.45	
6	RUDP-CS-115	8-Jul-18	Cn2Cn3	Chisang Khola	100.00	94.43	66.90	51.11	32.26	24.55	5.38	0.50	
7	RUDP-CS-116	9-Jul-18	R-40	Chisang Khola	100.00	92.63	62.80	52.20	29.75	16.86	8.64	0.50	
8	RUDP-CS-117	10-Jul-18	Madhames Yard	Chisang Khola	100.00	94.07	71.91	53.94	31.74	8.06	1.08	0.15	
9	RUDP-CS-118	11-Jul-18	Cn2Cn3	Chisang Khola	100.00	92.98	79.15	64.75	36.59	14.05	6.54	0.20	
10	RUDP-CS-119	11-Jul-18	R-6	Chisang Khola	100.00	94.54	67.48	55.66	28.60	15.68	8.02	0.30	
11	RUDP-CS-120	11-Jul-18	R-6	Chisang Khola	100.00	92.90	70.90	61.45	30.99	10.94	4.53	0.47	
12	RUDP-CS-121	12-Jul-18	DDC Yard	Chisang Khola	100.00	94.36	62.14	56.57	31.87	14.09	3.51	0.52	
13	RUDP-CS-122	13-Jul-18	R-11	Chisang Khola	100.00	91.50	69.69	40.57	26.06	12.46	4.87	0.51	
14	RUDP-CS-123	16-Jul-18	T3L39	Chisang Khola	100.00	94.35	78.83	59.47	31.60	10.43	4.51	0.82	
15	RUDP-CS-124	17-Jul-18	R-18	Chisang Khola	100.00	95.22	75.89	42.17	25.98	11.33	1.96	0.53	
16	RUDP-CS-125	19-Jul-18	R-11	Chisang Khola	100.00	94.70	67.89	58.30	30.85	17.35	7.13	0.13	
17	RUDP-CS-126	20-Jul-18	T3L39	Chisang Khola	100.00	94.37	70.85	42.93	32.57	13.95	7.23	0.96	
Spec. Limit :					100	90-100	60-95	30-70	15-34	5-20	0-10	<3%	
Contractor					Consultant								
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD					BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL								
 Checked By Engineer					 Submitted By Contract Manager					 Verified By Qty Engineer/CSE			
					 Approved By Team Leader								

REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

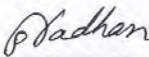

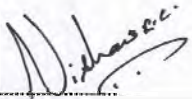

Summary Sheet of Monthly Test Report of Concrete Sand

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Project: Regional Urban Development Project (RUDP)															
SUMMARY OF HOT MIX ASPHALT CONCRETE WEARING COURSE															
FOR THE MONTH OF JULY 2018															
Test Result BY MARSHALL METHOD (AASHTO T 245-78)															
Contract Package: RUDP-ICB/BRT/02															
Lab No.	Date of Testing	Location of Work ch:	Mix Agg Gradation % Passing Sieve Sizes mm							Bitumen Content From Extraction Test %	Mix Density gnu/cc	Air Voids %	VMA %	Stability N	Flow mm
			20	16	9.5	4.75	2.36	0.6	0.075						
1-34	15/7/2018	R-17 Line CHB-000 to 0-310	100	100	76.66	54.50	35.28	17.45	6.31	5.75	2.362	3.61	16.86	13408	2.45
Specifications			100	100-100	75-82	54-59	33-37	16-21	6 to 9	5.703	Min 2.358	3-6%	≥ 15	≥ 8500	2-3
Job Mix Tolerances from RUDP Specification Table 2-4-10			±5%	Nil	±5%	±3%	±2%	±1%	Nil	±0.3%	For (25-51)mm Thickness W/C Course				
REMARKS:															
Test Conducted / Report Prepared by:			Contractor Reps							Consultant Rep					
Sr. Lab Technician			Submitted By:							Verified by / Checked by:					
Lab Technician			Contract Manager							Approved					
Kalika Construction			Zhongheng Construction Group							BUILDING DESIGN AUTHORITY (P) LTD IN Joint Venture					
Biratnagar, Site Lab JUDI			International Engineering Co. Ltd							With B.N. Consultancy PVT. LTD AND PLUS Engineers					
										AND Architects (P) LTD Kathmandu NEPAL					

REGIONAL URBAN DEVELOPMENT PROJECT														
Biratnagar Metropolitan City														
Contract No:- RUDP/ICB/BRT-02														
SUMMARY SHEET OF CEMENT TEST														
												Month	July	
												Year	2018	
S.N.	Lab Ref.no.	Type of cement	Tetsing Date	Consistency & Setting Time			Soundness (mm)	Fineness (%)	Date of Casting	Date of Testing		Strength N/mm ²		Remarks
				Normal Cons.(%)	Initial (Min)	Final (min)				7 Days	28 Days	7 days	28 Days	
1	6	Salimar OPC	5-Jun-18						6-Jun-18	13-Jun-18	4-Jul-18		46.10	✓
2	7	Salimar OPC	14-Jun-18						15-Jun-18	22-Jun-18	13-Jul-18		45.89	✓
3	8	Salimar OPC	22-Jun-18						23-Jun-18	30-Jun-18	21-Jul-18		48.97	✓
4	9	Salimar OPC	3-Jul-18	38.75	96	265	1.54	2.76	3-Jul-18	10-Jul-18	31-Jul-18	35.22	46.40	✓
5	10	Salimar OPC	7-Jul-18	28.50	97	263	1.75	2.18	8-Jul-18	15-Jul-18	5-Aug-18	35.93		
6	11	Salimar OPC	7-Jul-18	29.50	95	261	2.02	2.66	8-Jul-18	15-Jul-18	5-Aug-18	38.04		
7	12	Salimar OPC	12-Jul-18	29.00	92	259	2.02	2.66	12-Jul-18	19-Jul-18	9-Aug-18	36.23		
Sp.Limit:				Min-45	Max-600	<10	<10					>33	>43	
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								 Submitted By Contract Manager						
								 Verified By QTY Engineer/CSE						
								 Approved By Team Leader						

REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Monthly Test Report

Location :-R-90

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REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Monthly Test Report

Location :-R-76

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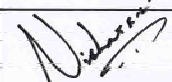

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REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Monthly Test Report of 20mm Agg. ✓

									Month	July		
									Year	2018		
									Type of Material	20 mm Agg		
S.n.	Lab.Ref No.	Date of Testing	Location of Sample	Source of Sample	Sieve Size in mm / % Passing by				L.A.A.%	Fl and El %	A.I.V.%	Remarks
					40	20	10	4.75				
1	RUDP-CA-110	1-Jul-18	R-90	Chisang Khola	100.00	97.12	35.52	2.44	23.12	18.60/14.80	22.27	✓
2	RUDP-CA-111	1-Jul-18	R-40	Chisang Khola	100.00	97.00	40.24	4.66	26.90	17.87/16.13	21.73	✓
3	RUDP-CA-112	2-Jul-18	R-40	Chisang Khola	100.00	97.16	39.19	2.84	25.12	17.88/15.04	22.21	
4	RUDP-CA-113	2-Jul-18	T3L39	Chisang Khola	100.00	97.09	35.47	3.14	26.24	19.59/18.58	20.77	
5	RUDP-CA-114	3-Jul-18	R-2	Chisang Khola	100.00	96.67	40.36	2.13	25.04	18.84/17.58	21.33	
6	RUDP-CA-115	4-Jul-18	T3L21	Chisang Khola	100.00	96.49	51.64	6.07	22.68	19.15/18.77	22.14	
7	RUDP-CA-116	5-Jul-18	R-2(Branch Road)	Chisang Khola	100.00	98.27	44.80	6.34	24.02	19.54/18.85	22.17	
8	RUDP-CA-117	9-Jul-18	R-21	Chisang Khola	100.00	98.51	38.65	4.08	26.24	19.55/16.29	19.78	
9	RUDP-CA-118	10-Jul-18	R-11	Chisang Khola	100.00	96.80	37.97	3.53	24.32	19.03/17.59	21.83	
10	RUDP-CA-119	13-Jul-18	R-6	Chisang Khola	100.00	96.68	33.45	4.18	26.84	19.40/18.11	21.16	
11	RUDP-CA-120	14-Jul-18	Rani Site	Chisang Khola	100.00	96.97	32.25	5.90	26.30	18.45/15.88	20.10	
12	RUDP-CA-121	15-Jul-18	R-7	Chisang Khola	100.00	97.29	58.44	2.71	23.06	19.99/16.81	21.98	
13	RUDP-CA-122	15-Jul-18	Madhumara-Yard	Chisang Khola	100.00	96.14	45.43	4.94	24.32	19.08/15.05	20.34	
14	RUDP-CA-123	16-Jul-18	DDC-Yard	Chisang Khola	100.00	96.62	43.51	3.38	23.12	20.14/16.52	19.28	
15	RUDP-CA-124	17-Jul-18	R-11	Chisang Khola	100.00	96.53	45.57	3.41	28.04	20.02/18.34	20.72	
16	RUDP-CA-125	19-Jul-18	R-21	Chisang Khola	100.00	97.28	40.01	4.06	28.68	19.68/18.05	22.91	
17	RUDP-CA-126	20-Jul-18	Cn2Cn3	Chisang Khola	100.00	97.42	33.05	2.56	25.04	19.15/15.02	21.39	
18	RUDP-CA-127	22-Jul-18	Madhumara-Yard	Chisang Khola	100.00	97.50	40.13	2.72	26.30	21.41/18.84	17.91	
Spec. Limit :					100	95-100	25-55	0-10	<35	<25	<25	✓
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									 Submitted By Contract Manager			
									 Verified By Qty Engineer/CSE			
									 Approved By Team Leader			



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Monthly Test Report of 20mm Agg.

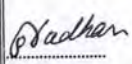
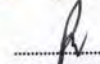
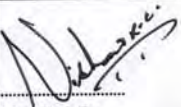

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REGIONAL URBAN DEVELOPMENT PROJECT								Month	July
Biratnagar Metropolitan City								Year	2018
Contract No:- RUDP/ICB/BRT-02								Type of Material	Brick
Summary Sheet Of Monthly Test Report									
S.N.	Lab Ref.No.	Testing Date	Location of Sample	Source of Brick	Name Of Brick	Water Absorption of Brick(%)	Strength of Brick(N/mm ²)	Remarks	
1	10	02-Jul-18	R-11	Katahari	Aakash	12.46	15.43	✓	
2	11	02-Jul-18	R-2	Katahari	Aakash	11.45	15.08	✓	
3	12	03-Jul-18	T3L39	Dadarbaiya	ACC	10.68	15.48		
4	13	03-Jul-18	R-40	Dadarbaiya	ACC	10.44	11.97	✓	
5	14	03-Jul-18	R-90	Katahari	Aakash	10.82	11.86	✓	
6	15	03-Jul-18	R-11	Katahari	Aakash	12.46	11.86		
7	16	04-Jul-18	T3L39	Dadarbaiya	ACC	11.50	12.04	✓	
8	17	04-Jul-18	R-40	Dadarbaiya	ACC	12.07	12.29		
9	18	04-Jul-18	R-2	Dadarbaiya	ACC	12.26	12.54		
10	19	05-Jul-18	R-11	Katahari	Aakash	12.26	11.87		
11	20	05-Jul-18	R-90	Katahari	Aakash	12.16	12.36		
12	21	05-Jul-18	R-2	Katahari	Aakash	11.72	11.94		
13	22	05-Jul-18	R-11	Katahari	Aakash	13.19	11.94		
14	23	07-Jul-18	R-2	Katahari	Aakash	12.19	12.26		
15	24	07-Jul-18	R-2	Katahari	Aakash	12.72	13.17		
16	25	07-Jul-18	T3L39	Katahari	Aakash	13.16	13.8		
17	26	07-Jul-18	T3L39	Katahari	Aakash	13.95	13.85		
18	27	09-Jul-18	R-90	Katahari	Aakash	13.61	13.76		
19	28	09-Jul-18	R-90	Katahari	Aakash	14.5	12.71		
20	29	10-Jul-18	R-90	Katahari	Aakash	13.45	12.67		
21	30	10-Jul-18	R-2	Katahari	Aakash	10.91	13.00		
22	31	13-Jul-18	R-90	Katahari	Aakash	12.56	12.96		
23	32	13-Jul-18	R-40	Dadarbaiya	ACC	11.09	13.64		
24	33	16-Jul-18	R-2	Dadarbaiya	ACC	12.11	12.17		
25	34	16-Jul-18	T3L39	Dadarbaiya	ACC	12.38	12.54		
Sub-Clause No.2502, Standard Specification Road and Bridge 2073						<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		Submitted By Contract Manager		Verified By QTY Engineer/CSE		Approved By Team Leader			





REGIONAL URBAN DEVELOPMENT PROJECT											
Biratnagar Metropolitan City											
Contract No:- RUDP/ICB/BRT-02											
Summary Sheet of Concrete Cube Test Report											
							Month		July		
							Year		2018		
							Type of Material		Conc. Cube		
S.N.	Location	Lab Ref.no.	Type of Cement	Brand of Cemen	Source of Sand+Agg.	Date of Casting	Date of Testing		Strength, N/mm ²		Concrete Grade
							7 Days	28 Days	7 Days	28 Days	
1	R-111	RUDP-478	Salimar	OPC	Chisang Khola	3-Jun-18	10-Jun-18	1-Jul-18		22.28	M20
2	South of Xenial hotel	RUDP-479	Salimar	OPC	Chisang Khola	3-Jun-18	10-Jun-18	1-Jul-18		22.50	M20
3	N-3	RUDP-480	Salimar	OPC	Chisang Khola	3-Jun-18	10-Jun-18	1-Jul-18		23.56	M20
4	B2-1	RUDP-481	Salimar	OPC	Chisang Khola	3-Jun-18	10-Jun-18	1-Jul-18		21.9	M20
5	CN2CN3	RUDP-482	Salimar	OPC	Chisang Khola	4-Jun-18	11-Jun-18	2-Jul-18		22.43	M20
6	Madhumara Yard	RUDP-483	Salimar	OPC	Chisang Khola	4-Jun-18	11-Jun-18	2-Jul-18		32.74	M30
7	DDC-yard	RUDP-484	Salimar	OPC	Chisang Khola	4-Jun-18	11-Jun-18	2-Jul-18		22.88	M20
8	CN2CN3	RUDP-485	Salimar	OPC	Chisang Khola	5-Jun-18	12-Jun-18	3-Jul-18		22.28	M20
9	R-6	RUDP-486	Salimar	OPC	Chisang Khola	5-Jun-18	12-Jun-18	3-Jul-18		22.80	M20
10	R-2	RUDP-487	Salimar	OPC	Chisang Khola	5-Jun-18	12-Jun-18	3-Jul-18		21.37	M20
11	Rani Site	RUDP-488	Salimar	OPC	Chisang Khola	6-Jun-18	13-Jun-18	4-Jul-18		23.56	M20
12	Madhumara Yard	RUDP-489	Salimar	OPC	Chisang Khola	6-Jun-18	13-Jun-18	4-Jul-18		32.59	M30
13	S13-B	RUDP-490	Salimar	OPC	Chisang Khola	6-Jun-18	13-Jun-18	4-Jul-18		21.67	M20
14	S11-A	RUDP-491	Salimar	OPC	Chisang Khola	6-Jun-18	13-Jun-18	4-Jul-18		21.00	M20
15	R3-A	RUDP-492	Salimar	OPC	Chisang Khola	6-Jun-18	13-Jun-18	4-Jul-18		21.22	M20
16	Rani Site	RUDP-493	Salimar	OPC	Chisang Khola	7-Jun-18	14-Jun-18	5-Jul-18		21.45	M20
17	R-113	RUDP-494	Salimar	OPC	Chisang Khola	7-Jun-18	14-Jun-18	5-Jul-18		22.20	M20
18	R-6	RUDP-495	Salimar	OPC	Chisang Khola	7-Jun-18	14-Jun-18	5-Jul-18		21.37	M20
19	S11-A	RUDP-496	Salimar	OPC	Chisang Khola	8-Jun-18	15-Jun-18	6-Jul-18		21.45	M20
20	S13-B	RUDP-497	Salimar	OPC	Chisang Khola	8-Jun-18	15-Jun-18	6-Jul-18		21.75	M20
21	R-114	RUDP-498	Salimar	OPC	Chisang Khola	9-Jun-18	16-Jun-18	7-Jul-18		23.48	M20
22	R-111	RUDP-499	Salimar	OPC	Chisang Khola	9-Jun-18	16-Jun-18	7-Jul-18		21.45	M20
23	R-6	RUDP-500	Salimar	OPC	Chisang Khola	9-Jun-18	16-Jun-18	7-Jul-18		23.41	M20
24	R-2	RUDP-501	Salimar	OPC	Chisang Khola	9-Jun-18	16-Jun-18	7-Jul-18		21.90	M20
26	R-12	RUDP-502	Salimar	OPC	Chisang Khola	11-Jun-18	18-Jun-18	9-Jul-18		23.41	M20
27	R-2	RUDP-503	Salimar	OPC	Chisang Khola	11-Jun-18	18-Jun-18	9-Jul-18		22.88	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	 Submitted By Contract Manager
 Verified By Qty Engineer/CSE	 Approved By Team Leader


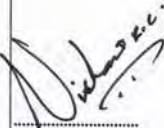
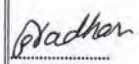
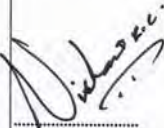


REGIONAL URBAN DEVELOPMENT PROJECT

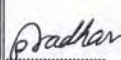

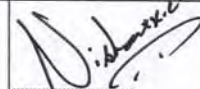

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Concrete Cube Test Report

							Month		July		
							Year		2018		
							Type of Material		Conc. Cube		
S.N.	Location	Lab Ref.no.	Type of Cement	Brand of Cement	Source of Sand+Agg.	Date of Casting	Date of Testing		Strength, N/mm2		Concrete Grade
							7 Days	28 Days	7 Days	28 Days	
28	R-111	RUDP-504	Salimar	OPC	Chisang Khola	11-Jun-18	18-Jun-18	9-Jul-18		21.9	M20
29	R-12	RUDP-505	Salimar	OPC	Chisang Khola	11-Jun-18	18-Jun-18	9-Jul-18		22.2	M20
30	Rani site	RUDP-506	Salimar	OPC	Chisang Khola	12-Jun-18	19-Jun-18	10-Jul-18		24.08	M20
31	R-114	RUDP-507	Salimar	OPC	Chisang Khola	12-Jun-18	19-Jun-18	10-Jul-18		21.83	M20
32	CN2CN3	RUDP-508	Salimar	OPC	Chisang Khola	13-Jun-18	20-Jun-18	11-Jul-18		23.41	M20
33	Madhumara Yard	RUDP-509	Salimar	OPC	Chisang Khola	13-Jun-18	20-Jun-18	11-Jul-18		33.49	M30
34	R-6	RUDP-510	Salimar	OPC	Chisang Khola	13-Jun-18	20-Jun-18	11-Jul-18		21.90	M20
35	R-2	RUDP-511	Salimar	OPC	Chisang Khola	14-Jun-18	21-Jun-18	12-Jul-18		21.45	M20
36	Rani site	RUDP-512	Salimar	OPC	Chisang Khola	14-Jun-18	21-Jun-18	12-Jul-18		22.28	M20
37	CN2CN3	RUDP-513	Salimar	OPC	Chisang Khola	14-Jun-18	21-Jun-18	12-Jul-18		16.26	M15
38	R-6	RUDP-514	Salimar	OPC	Chisang Khola	15-Jun-18	22-Jun-18	13-Jul-18		16.14	M15
39	R-2	RUDP-515	Salimar	OPC	Chisang Khola	15-Jun-18	22-Jun-18	13-Jul-18		21.45	M20
40	Rani site	RUDP-516	Salimar	OPC	Chisang Khola	15-Jun-18	22-Jun-18	13-Jul-18		21.45	M20
41	DDC-yard	RUDP-517	Salimar	OPC	Chisang Khola	16-Jun-18	23-Jun-18	14-Jul-18		23.03	M20
42	T3L39	RUDP-518	Salimar	OPC	Chisang Khola	16-Jun-18	23-Jun-18	14-Jul-18		21.45	M20
43	CN2CN3	RUDP-519	Salimar	OPC	Chisang Khola	16-Jun-18	23-Jun-18	14-Jul-18		22.20	M20
44	R-114	RUDP-520	Salimar	OPC	Chisang Khola	16-Jun-18	23-Jun-18	14-Jul-18		21.00	M20
45	R-104	RUDP-521	Salimar	OPC	Chisang Khola	17-Jun-18	24-Jun-18	15-Jul-18		22.20	M20
46	Madhumara Yard	RUDP-522	Salimar	OPC	Chisang Khola	17-Jun-18	24-Jun-18	15-Jul-18		33.04	M30
47	R-104	RUDP-523	Salimar	OPC	Chisang Khola	18-Jun-18	25-Jun-18	16-Jul-18		22.73	M20
48	R-42	RUDP-524	Salimar	OPC	Chisang Khola	18-Jun-18	25-Jun-18	16-Jul-18		21.98	M20
49	R-111	RUDP-525	Salimar	OPC	Chisang Khola	19-Jun-18	26-Jun-18	17-Jul-18		23.48	M20
50	DDC-yard	RUDP-526	Salimar	OPC	Chisang Khola	19-Jun-18	26-Jun-18	17-Jul-18		23.48	M20
51	CN2CN3	RUDP-527	Salimar	OPC	Chisang Khola	19-Jun-18	26-Jun-18	17-Jul-18		22.88	M20
52	CN2CN3	RUDP-528	Salimar	OPC	Chisang Khola	19-Jun-18	26-Jun-18	17-Jul-18		21.98	M20
53	T3L39	RUDP-529	Salimar	OPC	Chisang Khola	19-Jun-18	26-Jun-18	17-Jul-18		21.15	M20
54	T3L21	RUDP-530	Salimar	OPC	Chisang Khola	19-Jun-18	26-Jun-18	17-Jul-18		21.83	M20
55	Rani site	RUDP-531	Salimar	OPC	Chisang Khola	19-Jun-18	26-Jun-18	17-Jul-18		22.28	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							Verified By Qty Engineer/CSE				
Submitted By Contract Manager							Approved By Team Leader				



REGIONAL URBAN DEVELOPMENT PROJECT											
Biratnagar Metropolitan City											
Contract No:- RUDP/ICB/BRT-02											
Summary Sheet of Concrete Cube Test Report											
S.N.	Location	Lab Ref.no.	Type of Cement	Brand of Cement	Source of Sand+Agg.	Date of Casting	Month		July		Concrete Grade
							Year		2018		
							Type of Material		Conc. Cube		
							Date of Testing		Strength, N/mm2		
							7 Days	28 Days	7 Days	28 Days	
56	Madhumara Yard	RUDP-532	Salimar	OPC	Chisang Khola	19-Jun-18	26-Jun-18	17-Jul-18		33.11	M30
57	R-111	RUDP-533	Salimar	OPC	Chisang Khola	20-Jun-18	27-Jun-18	18-Jul-18		23.41	M20
58	Cn2Cn3	RUDP-534	Salimar	OPC	Chisang Khola	20-Jun-18	27-Jun-18	18-Jul-18		22.13	M20
59	DDC Yard	RUDP-535	Salimar	OPC	Chisang Khola	20-Jun-18	27-Jun-18	18-Jul-18		23.41	M20
60	T3L39	RUDP-536	Salimar	OPC	Chisang Khola	20-Jun-18	27-Jun-18	18-Jul-18		21.22	M20
61	Cn2Cn3	RUDP-537	Salimar	OPC	Chisang Khola	21-Jun-18	28-Jun-18	19-Jul-18		23.41	M20
62	T3L21	RUDP-538	Salimar	OPC	Chisang Khola	21-Jun-18	28-Jun-18	19-Jul-18		21.60	M20
63	DDC Yard	RUDP-539	Salimar	OPC	Chisang Khola	21-Jun-18	28-Jun-18	19-Jul-18		21.75	M20
64	DDC Yard	RUDP-540	Salimar	OPC	Chisang Khola	22-Jun-18	29-Jun-18	20-Jul-18		32.39	M30
65	Cn2Cn3	RUDP-541	Salimar	OPC	Chisang Khola	22-Jun-18	29-Jun-18	20-Jul-18		21.07	M20
66	T3L39	RUDP-542	Salimar	OPC	Chisang Khola	22-Jun-18	29-Jun-18	20-Jul-18		21.90	M20
67	Cn2Cn3	RUDP-543	Salimar	OPC	Chisang Khola	23-Jun-18	30-Jun-18	21-Jul-18		21.83	M20
68	DDC Yard	RUDP-544	Salimar	OPC	Chisang Khola	23-Jun-18	30-Jun-18	21-Jul-18		21.98	M20
69	R-111	RUDP-545	Salimar	OPC	Chisang Khola	23-Jun-18	30-Jun-18	21-Jul-18		22.13	M20
70	R-2	RUDP-546	Salimar	OPC	Chisang Khola	24-Jun-18	1-Jul-18	22-Jul-18	14.17	21.98	M20
71	R-183	RUDP-547	Salimar	OPC	Chisang Khola	24-Jun-18	1-Jul-18	22-Jul-18	14.84	21.75	M20
72	R-90	RUDP-548	Salimar	OPC	Chisang Khola	25-Jun-18	2-Jul-18	23-Jul-18	15.22	23.71	M20
73	R-7	RUDP-549	Salimar	OPC	Chisang Khola	25-Jun-18	2-Jul-18	23-Jul-18	15.89	23.18	M20
74	R-40	RUDP-550	Salimar	OPC	Chisang Khola	26-Jun-18	3-Jul-18	24-Jul-18	15.44	21.22	M20
75	R-7	RUDP-551	Salimar	OPC	Chisang Khola	26-Jun-18	3-Jul-18	24-Jul-18	15.14	21.37	M20
76	R-111	RUDP-552	Salimar	OPC	Chisang Khola	27-Jun-18	4-Jul-18	25-Jul-18	15.14	21.37	M20
77	DDC Yard	RUDP-553	Salimar	OPC	Chisang Khola	27-Jun-18	4-Jul-18	25-Jul-18	14.32	22.20	M20
78	Cn2Cn3	RUDP-554	Salimar	OPC	Chisang Khola	27-Jun-18	4-Jul-18	25-Jul-18	14.62	21.37	M20
79	Madhumara Yard	RUDP-555	Salimar	OPC	Chisang Khola	27-Jun-18	4-Jul-18	25-Jul-18	20.85	32.59	M30
80	R-2	RUDP-556	Salimar	OPC	Chisang Khola	27-Jun-18	4-Jul-18	25-Jul-18	14.69	22.35	M20
81	T3L39	RUDP-557	Salimar	OPC	Chisang Khola	28-Jun-18	5-Jul-18	26-Jul-18	15.22	21.22	M20
82	Cn2Cn3	RUDP-558	Salimar	OPC	Chisang Khola	29-Jun-18	6-Jul-18	27-Jul-18	15.07	21.00	M20
83	DDC Yard	RUDP-559	Salimar	OPC	Chisang Khola	29-Jun-18	6-Jul-18	27-Jul-18	15.07	21.00	M20
84	R-6	RUDP-560	Salimar	OPC	Chisang Khola	29-Jun-18	6-Jul-18	27-Jul-18	12.05	16.04	M15
85	Rani-Site	RUDP-561	Salimar	OPC	Chisang Khola	29-Jun-18	6-Jul-18	27-Jul-18	15.59	21.15	M20
86	DDC Yard	RUDP-562	Salimar	OPC	Chisang Khola	30-Jun-18	7-Jul-18	28-Jul-18	16.41	21.45	M20
87	DDC Yard	RUDP-563	Salimar	OPC	Chisang Khola	1-Jul-18	8-Jul-18	29-Jul-18	16.11	21.83	M20
88	R-2	RUDP-564	Salimar	OPC	Chisang Khola	2-Jul-18	9-Jul-18	30-Jul-18	15.59	21.37	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						 Submitted By Contract Manager					
 Verified By Qty Engineer/CSE						 Approved By Team Leader					



Summary Sheet of Concrete Cube Test Report

Summary Sheet of Concrete Cube Test Report

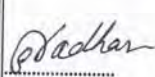

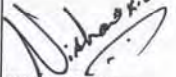



REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Mortar Test Report

							Month		July		
							Year		2018		
							Description of Sample		Brick Wall		
S.N.	Location	Lab Ref.no.	Type of Cement	Brand of Cement	Source of Sand	Date of Casting	Date of Testing		Strength, N/mm2		Type of Grade
							7 Days	28 Days	7 Days	28 Days	
1	South of Xenial hotel	MR-273	Salimar	OPC	Chisang Khola	3-Jun-18	10-Jun-18	1-Jul-18		8.00	7.5
2	T3L39	MR-274	Salimar	OPC	Chisang Khola	4-Jun-18	11-Jun-18	2-Jul-18		8.14	7.5
3	T3L39	MR-275	Salimar	OPC	Chisang Khola	4-Jun-18	11-Jun-18	2-Jul-18		8.14	7.5
4	R-111	MR-276	Salimar	OPC	Chisang Khola	7-Jun-18	14-Jun-18	5-Jul-18		8.27	7.5
5	DSP Road	MR-277	Salimar	OPC	Chisang Khola	7-Jun-18	14-Jun-18	5-Jul-18		8.00	7.5
6	B2-1	MR-278	Salimar	OPC	Chisang Khola	8-Jun-18	15-Jun-18	6-Jul-18		8.54	7.5
7	DSP Road	MR-279	Salimar	OPC	Chisang Khola	8-Jun-18	15-Jun-18	6-Jul-18		8.94	7.5
8	Rani Site	MR-280	Salimar	OPC	Chisang Khola	8-Jun-18	15-Jun-18	6-Jul-18		8.94	7.5
9	Rani Site	MR-281	Salimar	OPC	Chisang Khola	9-Jun-18	16-Jun-18	7-Jul-18		8.54	7.5
10	N-3	MR-282	Salimar	OPC	Chisang Khola	10-Jun-18	17-Jun-18	8-Jul-18		8.67	7.5
11	R-12	MR-283	Salimar	OPC	Chisang Khola	11-Jun-18	18-Jun-18	9-Jul-18		8.67	7.5
12	DSP Road	MR-284	Salimar	OPC	Chisang Khola	12-Jun-18	19-Jun-18	10-Jul-18		9.07	7.5
13	B2-1	MR-285	Salimar	OPC	Chisang Khola	12-Jun-18	19-Jun-18	10-Jul-18		8.80	7.5
14	Rani Site	MR-286	Salimar	OPC	Chisang Khola	12-Jun-18	19-Jun-18	10-Jul-18		8.40	7.5
15	R-111	MR-287	Salimar	OPC	Chisang Khola	13-Jun-18	20-Jun-18	11-Jul-18		8.67	7.5
16	DSP Road	MR-288	Salimar	OPC	Chisang Khola	13-Jun-18	20-Jun-18	11-Jul-18		7.87	7.5
17	B2-1	MR-289	Salimar	OPC	Chisang Khola	13-Jun-18	20-Jun-18	11-Jul-18		8.40	7.5
18	Rani Site	MR-290	Salimar	OPC	Chisang Khola	13-Jun-18	20-Jun-18	11-Jul-18		8.94	7.5
19	T3L39	MR-291	Salimar	OPC	Chisang Khola	15-Jun-18	22-Jun-18	13-Jul-18		8.27	7.5
20	R-2	MR-292	Salimar	OPC	Chisang Khola	15-Jun-18	22-Jun-18	13-Jul-18		8.00	7.5
21	Rani Site	MR-293	Salimar	OPC	Chisang Khola	15-Jun-18	22-Jun-18	13-Jul-18		8.54	7.5
22	Rani Site	MR-294	Salimar	OPC	Chisang Khola	15-Jun-18	22-Jun-18	13-Jul-18		8.67	7.5
23	R-111	MR-295	Salimar	OPC	Chisang Khola	16-Jun-18	23-Jun-18	14-Jul-18		8.67	7.5
24	T3L39	MR-296	Salimar	OPC	Chisang Khola	17-Jun-18	24-Jun-18	15-Jul-18		8.27	7.5
25	Rani Site	MR-297	Salimar	OPC	Chisang Khola	17-Jun-18	24-Jun-18	15-Jul-18		8.40	7.5
26	R-2	MR-298	Salimar	OPC	Chisang Khola	18-Jun-18	25-Jun-18	16-Jul-18		8.27	7.5
27	T3L39	MR-299	Salimar	OPC	Chisang Khola	21-Jun-18	28-Jun-18	19-Jul-18		8.54	7.5
28	R-2	MR-300	Salimar	OPC	Chisang Khola	21-Jun-18	28-Jun-18	19-Jul-18		8.80	7.5
29	T3L39	MR-301	Salimar	OPC	Chisang Khola	22-Jun-18	29-Jun-18	20-Jul-18		8.27	7.5
30	R-111	MR-302	Salimar	OPC	Chisang Khola	23-Jun-18	30-Jun-18	21-Jul-18		8.40	7.5
31	T3L39	MR-303	Salimar	OPC	Chisang Khola	23-Jun-18	30-Jun-18	21-Jul-18		8.67	7.5
32	R-83	MR-304	Salimar	OPC	Chisang Khola	24-Jun-18	1-Jul-18	22-Jul-18	6.27	8.67	7.5
33	R-183	MR-305	Salimar	OPC	Chisang Khola	24-Jun-18	1-Jul-18	22-Jul-18	6.00	8.54	7.5
34	N-2	MR-306	Salimar	OPC	Chisang Khola	24-Jun-18	1-Jul-18	22-Jul-18	6.40	8.66	7.5
Contractor						Consultant					
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD						BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL					
											
Checked By Engineer						Submitted By Contract Manager					
											
Verified By Qty Engineer/CSE						Approved By Team Leader					

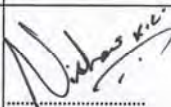


REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Mortar Test Report

							Month		July		
							Year		2018		
							Description of Sample		Brick Wall		
S.N.	Location	Lab Ref.no.	Type of Cement	Brand of Cement	Source of Sand	Date of Casting	Date of Testing		Strength, N/mm2		Type of Grade
							7 Days	28 Days	7 Days	28 Days	
35	R-11	MR-307	Salimar	OPC	Chisang Khola	24-Jun-18	1-Jul-18	22-Jul-18	5.60	8.14	7.5
36	R-40	MR-308	Salimar	OPC	Chisang Khola	24-Jun-18	1-Jul-18	22-Jul-18	5.33	8.54	7.5
37	R-7	MR-309	Salimar	OPC	Chisang Khola	25-Jun-18	2-Jul-18	23-Jul-18	6.14	8.40	7.5
38	R-90	MR-310	Salimar	OPC	Chisang Khola	25-Jun-18	2-Jul-18	23-Jul-18	6.00	8.27	7.5
39	R-83	MR-311	Salimar	OPC	Chisang Khola	25-Jun-18	2-Jul-18	23-Jul-18	5.60	8.67	7.5
40	N-2	MR-312	Salimar	OPC	Chisang Khola	25-Jun-18	2-Jul-18	23-Jul-18	5.74	8.27	7.5
41	R-11	MR-313	Salimar	OPC	Chisang Khola	25-Jun-18	2-Jul-18	23-Jul-18	5.60	8.80	7.5
42	R-40	MR-314	Salimar	OPC	Chisang Khola	25-Jun-18	2-Jul-18	23-Jul-18	5.33	8.40	7.5
43	R-7	MR-315	Salimar	OPC	Chisang Khola	26-Jun-18	3-Jul-18	24-Jul-18	6.00	8.27	7.5
44	R-90	MR-316	Salimar	OPC	Chisang Khola	27-Jun-18	4-Jul-18	25-Jul-18	6.40	8.00	7.5
45	R-83	MR-317	Salimar	OPC	Chisang Khola	28-Jun-18	5-Jul-18	26-Jul-18	5.47	8.00	7.5
46	N-2	MR-318	Salimar	OPC	Chisang Khola	28-Jun-18	5-Jul-18	26-Jul-18	6.00	8.00	7.5
47	R-7	MR-319	Salimar	OPC	Chisang Khola	28-Jun-18	5-Jul-18	26-Jul-18	6.00	8.27	7.5
48	R-40	MR-320	Salimar	OPC	Chisang Khola	28-Jun-18	5-Jul-18	26-Jul-18	6.40	8.40	7.5
49	R-2	MR-321	Salimar	OPC	Chisang Khola	29-Jun-18	6-Jul-18	27-Jul-18	6.27	8.40	7.5
50	R-40	MR-322	Salimar	OPC	Chisang Khola	29-Jun-18	6-Jul-18	27-Jul-18	6.40	8.40	7.5
51	N-2	MR-323	Salimar	OPC	Chisang Khola	29-Jun-18	6-Jul-18	27-Jul-18	5.33	8.67	7.5
52	R-11	MR-324	Salimar	OPC	Chisang Khola	30-Jun-18	7-Jul-18	28-Jul-18	6.40	8.00	7.5
53	R-40	MR-325	Salimar	OPC	Chisang Khola	30-Jun-18	7-Jul-18	28-Jul-18	5.33	8.27	7.5
54	N-2	MR-326	Salimar	OPC	Chisang Khola	1-Jul-18	8-Jul-18	29-Jul-18	6.14	8.40	7.5
55	T3L39	MR-327	Salimar	OPC	Chisang Khola	1-Jul-18	8-Jul-18	29-Jul-18	6.40	8.67	7.5
56	R-2	MR-328	Salimar	OPC	Chisang Khola	1-Jul-18	8-Jul-18	29-Jul-18	6.54	8.00	7.5
57	R-83	MR-329	Salimar	OPC	Chisang Khola	1-Jul-18	8-Jul-18	29-Jul-18	5.74	8.54	7.5
58	R-90	MR-330	Salimar	OPC	Chisang Khola	2-Jul-18	9-Jul-18	30-Jul-18	6.14	8.67	7.5
59	Rani Site	MR-331	Salimar	OPC	Chisang Khola	2-Jul-18	9-Jul-18	30-Jul-18	6.14	8.27	7.5
60	R-11	MR-332	Salimar	OPC	Chisang Khola	3-Jul-18	10-Jul-18	31-Jul-18	6.14	8.94	7.5
27	R-2	MR-333	Salimar	OPC	Chisang Khola	3-Jul-18	10-Jul-18	31-Jul-18	6.00	8.14	7.5
62	T3L39	MR-334	Salimar	OPC	Chisang Khola	3-Jul-18	10-Jul-18	31-Jul-18	5.60	8.00	7.5
63	R-11	MR-335	Salimar	OPC	Chisang Khola	3-Jul-18	10-Jul-18	31-Jul-18	6.14	8.14	7.5
64	R-7	MR-336	Salimar	OPC	Chisang Khola	5-Jul-18	12-Jul-18	2-Aug-18	8.33		7.5
65	T3L39	MR-337	Salimar	OPC	Chisang Khola	5-Jul-18	12-Jul-18	2-Aug-18	6.40		7.5
66	R-2	MR-338	Salimar	OPC	Chisang Khola	5-Jul-18	12-Jul-18	2-Aug-18	6.27		7.5
67	T3L21	MR-339	Salimar	OPC	Chisang Khola	5-Jul-18	12-Jul-18	2-Aug-18	6.54		7.5
68	R-90	MR-340	Salimar	OPC	Chisang Khola	6-Jul-18	13-Jul-18	3-Aug-18	5.74		7.5
Contractor						Consultant					
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD						BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL					
											
Checked By Engineer						Submitted By Contract Manager					
											
						Verified By Qty Engineer/CSE					
											
						Approved By Team Leader					

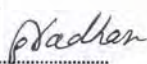
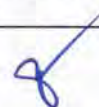


REGIONAL URBAN DEVELOPMENT PROJECT

Biratnagar Metropolitan City

Contract No:- RUDP/ICB/BRT-02

Summary Sheet of Mortar Test Report

							Month		July		
							Year		2018		
							Description of Sample		Brick Wall		
S.N.	Location	Lab Ref.no.	Type of Cement	Brand of Cement	Source of Sand	Date of Casting	Date of Testing		Strength, N/mm2		Type of Grade
							7 Days	28 Days	7 Days	28 Days	
69	R-2	MR-341	Salimar	OPC	Chisang Khola	6-Jul-18	13-Jul-18	3-Aug-18	6.14		7.5
70	R-40	MR-342	Salimar	OPC	Chisang Khola	6-Jul-18	13-Jul-18	3-Aug-18	6.40		7.5
71	R-7	MR-343	Salimar	OPC	Chisang Khola	6-Jul-18	13-Jul-18	3-Aug-18	6.00		7.5
72	T3L24	MR-344	Salimar	OPC	Chisang Khola	7-Jul-18	14-Jul-18	4-Aug-18	6.40		7.5
73	N-2	MR-345	Salimar	OPC	Chisang Khola	7-Jul-18	14-Jul-18	4-Aug-18	5.87		7.5
74	R-2	MR-346	Salimar	OPC	Chisang Khola	8-Jul-18	15-Jul-18	5-Aug-18	6.27		7.5
75	T3L39	MR-347	Salimar	OPC	Chisang Khola	9-Jul-18	16-Jul-18	6-Aug-18	5.33		7.5
76	R-2	MR-348	Salimar	OPC	Chisang Khola	9-Jul-18	16-Jul-18	6-Aug-18	6.00		7.5
77	T3L21	MR-349	Salimar	OPC	Chisang Khola	9-Jul-18	16-Jul-18	6-Aug-18	6.14		7.5
78	T3L39	MR-350	Salimar	OPC	Chisang Khola	9-Jul-18	16-Jul-18	6-Aug-18	6.14		7.5
79	R-2	MR-351	Salimar	OPC	Chisang Khola	10-Jul-18	17-Jul-18	7-Aug-18	6.00		7.5
80	Rani Site	MR-352	Salimar	OPC	Chisang Khola	10-Jul-18	17-Jul-18	7-Aug-18	5.47		7.5
81	Rani Site	MR-353	Salimar	OPC	Chisang Khola	11-Jul-18	18-Jul-18	8-Aug-18	6.40		7.5
82	T3L39	MR-354	Salimar	OPC	Chisang Khola	11-Jul-18	18-Jul-18	8-Aug-18	6.40		7.5
83	R-2(Branch Road)	MR-355	Salimar	OPC	Chisang Khola	11-Jul-18	18-Jul-18	8-Aug-18	5.87		7.5
84	R-2(Branch Road)	MR-356	Salimar	OPC	Chisang Khola	11-Jul-18	18-Jul-18	8-Aug-18	6.14		7.5
85	T3L39	MR-357	Salimar	OPC	Chisang Khola	11-Jul-18	18-Jul-18	8-Aug-18	6.00		7.5
86	Rani Site	MR-358	Salimar	OPC	Chisang Khola	12-Jul-18	19-Jul-18	9-Aug-18	6.14		7.5
87	R-2	MR-359	Salimar	OPC	Chisang Khola	12-Jul-18	19-Jul-18	9-Aug-18	6.27		7.5
88	Rani Site	MR-360	Salimar	OPC	Chisang Khola	13-Jul-18	20-Jul-18	10-Aug-18	6.00		7.5
89	R-2(Branch Road)	MR-361	Salimar	OPC	Chisang Khola	14-Jul-18	21-Jul-18	11-Aug-18	5.60		7.5
90	Rani Site	MR-362	Salimar	OPC	Chisang Khola	14-Jul-18	21-Jul-18	11-Aug-18	6.27		7.5
91	R-2(Branch Road)	MR-363	Salimar	OPC	Chisang Khola	14-Jul-18	21-Jul-18	11-Aug-18	5.60		7.5
92	Rani Site	MR-364	Salimar	OPC	Chisang Khola	15-Jul-18	22-Jul-18	12-Aug-18	6.14		7.5
93	T3L39	MR-365	Salimar	OPC	Chisang Khola	15-Jul-18	22-Jul-18	12-Aug-18	6.00		7.5
94	Rani Site	MR-366	Salimar	OPC	Chisang Khola	15-Jul-18	22-Jul-18	12-Aug-18	6.27		7.5
96	R-2(Branch Road)	MR-367	Salimar	OPC	Chisang Khola	15-Jul-18	22-Jul-18	12-Aug-18	6.14		7.5
97	R-21	MR-368	Salimar	OPC	Chisang Khola	16-Jul-18	23-Jul-18	13-Aug-18	6.00		7.5
98	Rani Site	MR-369	Salimar	OPC	Chisang Khola	16-Jul-18	23-Jul-18	13-Aug-18	6.40		7.5
99	R-11	MR-370	Salimar	OPC	Chisang Khola	16-Jul-18	23-Jul-18	13-Aug-18	6.00		7.5
100	R-21	MR-371	Salimar	OPC	Chisang Khola	17-Jul-18	24-Jul-18	14-Aug-18	6.27		7.5
101	R-11	MR-372	Salimar	OPC	Chisang Khola	18-Jul-18	25-Jul-18	15-Aug-18	5.60		7.5
102	Rani Site	MR-373	Salimar	OPC	Chisang Khola	19-Jul-18	26-Jul-18	16-Aug-18	6.14		7.5
103	R-21	MR-374	Salimar	OPC	Chisang Khola	19-Jul-18	26-Jul-18	16-Aug-18	5.87		7.5
Contractor						Consultant					
ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL ENGINEERING CO. LTD						BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL					
											
Checked By Engineer						Verified By Qty Engineer/CSE					
											
Submitted By Contract Manager						Approved By Team Leader					



Summary Sheet of Mortar Test Report








Summary Sheet of Monthly Test Report



Summary Sheet of Field Density Test

Type of Material	Sub-Grade
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<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>.....</p> <p>Checked By Engineer</p>	 <p>.....</p> <p>Submitted By Contract Manager</p>	 <p>.....</p> <p>Verified By Qty Engineer/CSE</p>	 <p>.....</p> <p>Approved By Team Leader</p>





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

Location:-R-77





Summary Sheet of Field Density Test

Month	July
Year	2018
Type of Material	Sub-Grade

Sn.	Lab.Ref.no	Testing Date	Change	Moisture content %		Density(gm/cc)		Sub-Grade	
				OMC%	Field MC%	Max.Dry density gm/cc	Field Dry density, gm/cc	Compaction %	
								Compaction %	Specified %
1	RUDP-SG-FD-1, L/S	21-Jul-18	0+050	7.00	6.47	2.005	1.921	95.83 ✓	95
2	RUDP-SG-FD-1, R/S	21-Jul-18	0+100	7.00	7.87	2.005	1.943	96.89 ✓	95
3	RUDP-SG-FD-1, C/L	21-Jul-18	0+150	7.00	7.03	2.005	1.953	97.42 ✓	95
4	RUDP-SG-FD-1, L/S	21-Jul-18	0+200	7.20	6.94	1.980	1.894	95.67 ✓	95
5	RUDP-SG-FD-1, R/S	21-Jul-18	0+230	7.20	7.03	1.980	1.907	96.30 ✓	95

<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><i>D. Adhikari</i></p> <p>.....</p> <p>Checked By Engineer</p>	<p><i>R</i></p> <p>.....</p> <p>Submitted By Contract Manager</p>	<p><i>V. B. B. B.</i></p> <p>.....</p> <p>Verified By Qty Engineer/CSE</p>	<p><i>[Signature]</i></p> <p>.....</p> <p>Approved By Team Leader</p>



Government of Nepal
Ministry of Physical Infrastructure and Transport

DEPARTMENT OF ROADS
CENTRAL ROAD LABORATORY

CHAKUPAT, LALITPUR
Department of Roads
Chakupat, Lalitpur

Phone: 015260696

Ref.No.: 2982

Date: 2075.03.32

Subject: Bitumen Test Result.

To: Building Design Authority (P) Ltd
in joint venture with
B.N. Consultancy Pvt. Ltd. and Plus Engineers & Architects (P) Ltd, Kathmandu
Regional Urban Development Project (RUDP), ADB Loan No. 47252
Biratnagar Metropolitan City, Biratnagar
Contractor : ZHONGHENG Construction Group International Co. Ltd.

With reference to your letter dated 05 July 2018, Ref.No: rudpbdbtr/tl 2018 -143, we are enclosing herewith Bitumen test results of provided 2 samples of Bitumen.

Test Results

S.N.	Name of tests	Unit	Result	Result	Remarks
			Sample 1	Sample 2	
1	Penetration at 25°C	1/10mm	80	80	
2	Specific gravity		1.027	1.028	
3	Softening Point	°C	44.8	44.7	
4	Water Content	%	Nil	Nil	
5	Ductility at 25°C	cm	100.0	100.0	Unbreakable up to 100 cm.
6	Solubility in Trichloroethylene	%	99.7	99.6	
7	Loss on heating for 5 hours at 163 °C	%	0.093	0.146	
8	a. Flash Point	°C	290.0	305.0	
	b. Fire Point	°C	340.0	355.0	
9	Penetration of Residue after loss on heating	1/10mm	65	66	

Note: Samples are not taken by us. This test report only represents the tested samples.

Shiva Raj Parit
(Laboratory Officer)
Laboratory Officer



TRIBHUVAN UNIVERSITY
INSTITUTE OF ENGINEERING
DEPARTMENT OF CIVIL ENGINEERING
CENTRAL MATERIAL TESTING LABORATORY

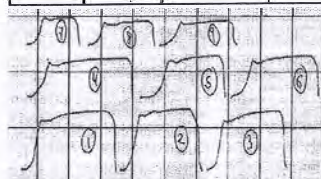
TENSILE STRENGTH

Project : Sewerage, Drainage, Footpath & Road Furniture Works Const. Project
Location : Biratnagar Metropolitan City Under (RUDP) Project
Client : Dept. of U. Dev. & Building Const.
Provided by : BDA in JV with B.N.Consultancy & Plus Eng. & Architects
Contractor : ZHONGHENG Const. Group Int'l Eng. Co. Ltd. JV

Date : 32/03/2018
Machine : U.T.M.

Type of Sample : Steel Rebars (Kathmandu & Jagdamba Steel)

S.N.	No.	Dia. of Bar, mm	Area, cm^2	Ultimate Load, Kg	Ultimate Tensile Strength Kg/cm^2	Yield Strength kg/cm^2	Weight Kg / m	Elongation %	Remarks
1	1	12.00	1.13	7406.55	6531.13	5412.52	0.890	19.944	Kathmandu Steel
2	2	12.00	1.13	7602.75	6746.03	6149.09	0.885	18.672	
3	3	12.00	1.14	7259.40	6392.65	5448.73	0.891	16.609	
4	1	10.00	0.79	4905.00	6202.77	5508.52	0.621	25.874	
5	2	10.00	0.80	5150.25	6430.21	5685.78	0.629	19.777	Jagdamba Steel
6	3	10.00	0.79	5052.15	6370.88	5742.70	0.623	21.863	
7	1	8.00	0.50	3580.65	7098.37	6672.84	0.396	17.444	
8	2	8.00	0.51	3139.20	6194.99	5665.72	0.398	22.377	
9	3	8.00	0.50	3139.20	6216.97	5685.82	0.396	24.908	



Note : Steel rebar were supplied by BDA in JV with B.N.Consultancy & Plus Eng. & Architects

(Rajendra R. Parit)
Dy. Chief

Dy. Chief

**ANNEX-4: Social Safeguard Monitoring
/Environmental Monitoring Formats
Attached**



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: July 2018

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		
	Insurance for workers	Yes	
2.1	Personal Protective Equipment (PPE) provided to labors and is using (helmet, facemasks, muffles, gloves, boots, jacket, goggles etc.)	Daily Provided	
2.2			
2.3	Public notification Safety and warning signs and informative signboards in working sites for work safety	Yes Provided	
2.4	Use of barricades, caution tape and flag	Daily Used	
3	Campsite management		
3.1	Location	DDC, Kanchanbari, Shanti CHowk, Rani	
3.2	First aid facilities available at camp and worksites	Yes	
3.3	Drinking water supply and sanitation facilities/ pit latrines	Tap water/ Hand Pump	
3.4	Waste Disposal and Management facilities	Yes	
3.5	Type of fuel used for cooking	L.P.G	
4	Spoil and Construction material Management		
4.1	Cut and fill balance maintained or not, Reuse of spoil materials	Cut & Fill balance maintained	
4.2	Use of safe spoil disposal locations	Not Applicable	



4.3	Disturbance to Pedestrian and traffic movement	No any disturbance to pedestraint & traffic movement	
4.4	Use of private land and agreement with land owners	Yes	
5	Air, Noise and Water Pollution		
5.1	Dust emission and Noise pollution sites	Water sprinkled by tanker during dry/sunny day.	
5.2	Water quality monitoring result and locations	-	
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	Not Applicable	
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	



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

Subproject Road : -RUDP/ICB/BRT/2

Month/Year: July/2018

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

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	√					



Regional Urban Development Project(RUDP) Social Safeguard Monitoring

Inventory of Social Facilities

1. General information

Subproject: -RUDP/ICB/BRT/2

Month/Year: July/2018

Name of Contractor: -ZHONGGHENG Construction

Group/International Engineering Co pvt Beijing China.

Contract Package: RUDP/ICB/BRT/2

2. Total numbers of contractor workers involved in road construction(write down the number)

Type of Workers		Camp-1	Camp-2	Camp-3	Camp-4	Camp-5	Camp-6	Camp-7	Camp-8	Camp-9	Camp-10	Remarks
Local	Male	08	33	52	42	35	68	32	20	13		
	Female	0	03	0	0	0	0	0	0	0		
Non-Local	Male	0	0	32	17	15	0	0	08	13		
	Female	0	0	0	0	0	0	0	0	0		
Child Labour	Male											
	Female											

3. Source and adequacy of drinking water facility in the labour camp(use code)

Sources	camp-1	Camp-2	Camp-3	Camp-4	Camp-5	Camp-6	Camp-7	Camp-8	Camp-9	Camp-10	Remarks
a. Piped water	02	01	01	02	02	02	01	01	01		
b. Well/Spring	01	-	02	01	02	-	01	01	01		
c. Tanker	-	01	01	-	-	-	-	-	-		
d.											
Code:											
Insufficient-1	Sufficient-2	Plenty-3									

4. Type and number of toilets in the labour camp (write down the number)

Type	Camp-1	Camp-2	Camp-3	Camp-4	Camp-5	Camp-6	Camp-7	Camp-8	Camp-9	Camp-10	Remarks
a. Pit Latrine					01				01		
b. Pan	04	02	02	02	01	02	02	01		0	
c. Open											
d.											

5. Energy used in labour camp (tick mark)

Sources of Energy	Camp-1	Camp-2	Camp-3	Camp-4	Camp-5	Camp-6	Camp-7	Camp-8	Camp-9	Camp-10	Remarks
a. Firewood											
b. Kerosene											
c. L.P Gas	√	√	√	√	√	√	√	√	√	√	



Prepared by:-

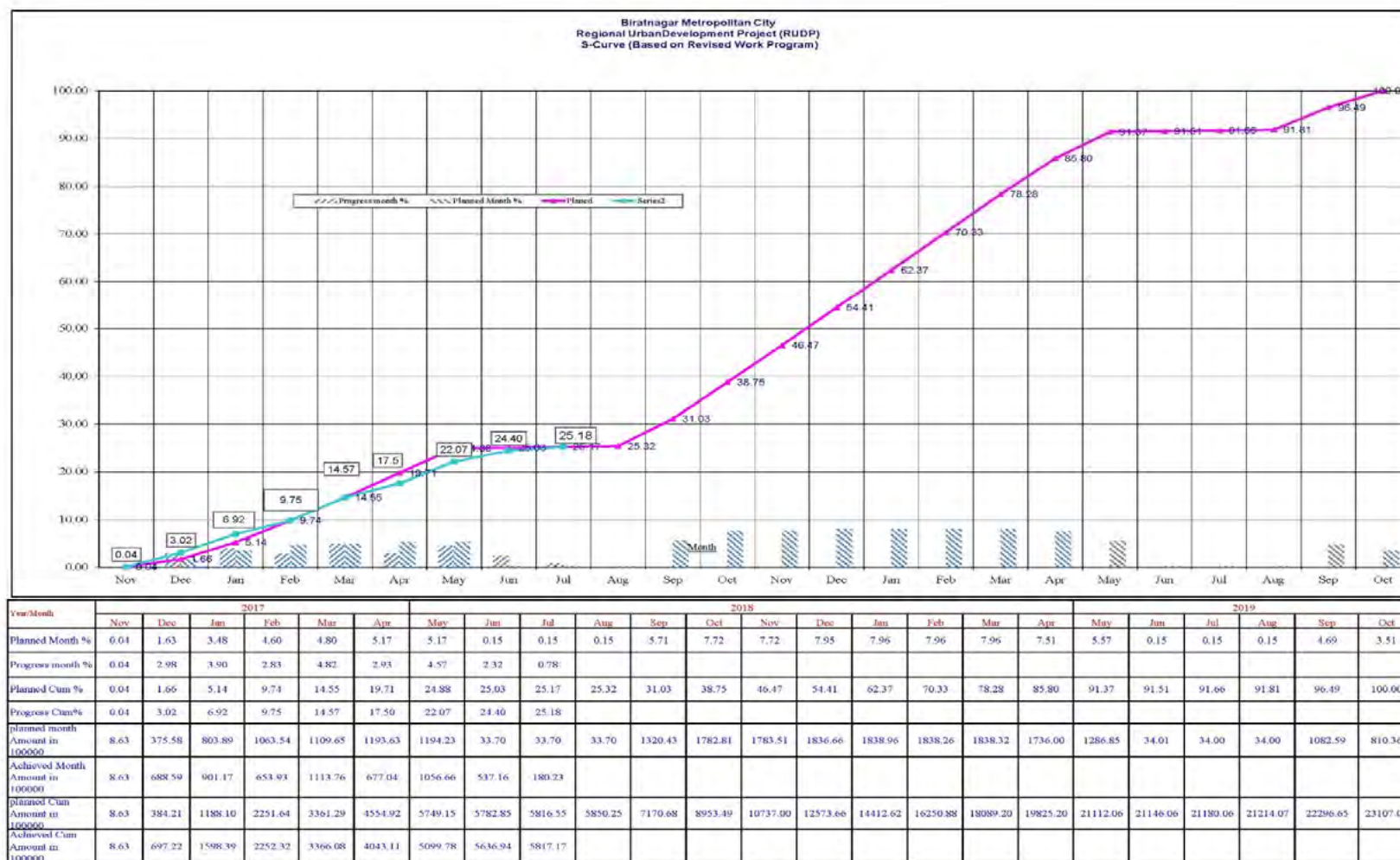
verified by:-

Monitored by:-



ANNEX-5: S-Curve
Attached





Master Plan of RUDP Project



RUDP PROJECT (Road)

