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



November 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 in the following Chapters the 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 linewith 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 BiratnagarMunicipality.BuildingDesign Authority (P) Ltd (Nepal) ,B.N. Consultancy Pvt.ltd and PLUS Engineers & Architects (P) Ltd Kathmandu and have entered for a Contract ofConsulting Services with Regional Urban DevelopmentProject (RUDP), ProjectImplementation Unit(PIU), BiratnagarMetropolitanCity on 28thOctober 2017.

Regional Urban DevelopmentProject (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)						
	Government of Nepal,						
Executing Agency	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)	19.18%						
Sewer Line	41.81%						
Storm Drain	97.44%						
Road Side Drain	57.47%						
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	Planned: 46.47%, Actual: 36.22%; Lead(+) or Lag(-) by (-) 10.25%						
Einamaial Duoguaga ya ta data	In Percentage: 26.17%, In Figure: NRs. 683,312,087.96(including VAT and PS).						
Financial Progress up to date	In Words: NRs. Seven Hundred Forty Nine Million Six Hundred Sixty Eight Thousand Six Hundred Fifty Four and Paisa Seven 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						
а	HDPE/RCC	m	20,082.00	8,396.00	11,686.00	41.81%	
b	Manhole	No.	656.00	282.00	374.00	42.99%	
С	Sewer Inlet	No.	1,010.00	250.00	760.00	24.75%	
d	House Connection	No.	3,784.00	375.00	3,409.00	9.91%	
2	Storm Water Drain						
а	RCC Drain	m	652.89/585	570.00	15.00	97.44%	Revised Length =585m
b	Piles	No.	132.00	138.00	(6.00)	100.00%	Exceeded
3	Road						
а	Subgrade	т	28,454.25	45,405.75	38.52%	28,454.25	
b	Subbase	т	27,770.65	46,089.35	37.60%	27,770.65	
С	Base	т	23,298.10	50,561.90	31.54%	23,298.10	
d	Prime	т	15,167.45	58,692.55	20.54%	15,167.45	
е	Asphalt	т	14,167.45	59,692.55	19.18%	14,167.45	
4	Road Side Drain	т	14,971.48	11,078.53	57.47%	14,971.48	



3.1 SUB PROJECT COMPONENTS

3.1.1 SEWER LINES

Trunk Line T1 & T2 was already completed in STIUEIP (Secondary Town Integrated Urban Environmental Improvement Project). Remaining part of sewer lines of T3 and T4 have been identified and necessary survey is going on. In this month, sewer line works at T1L10 and T1L11has been completed and sewer line works at T3L39, T3L39B and T3L21 is about to be finished. Likewise, sewer work at R6 (T3L18) and R7 (T3L11) is still going on.

Table 1: PROPOSED SEWER LINES

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



Table: - 2 PHYSICAL PROGRESS IN SEWER LINES till November 2018

		BoQ		Up to Pre	Month	This	month	Total to	date	
SN	Locations	Length (m)	Manh ole (no)	Length(m)	Manhole (no)	Length (m)	Manhole (no)	Length (m)	Manhole (no)	Progres s %
1	Hume pipe(T2)	206.00	6.00		(23)	205.00	6.00	205.00	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	_	_	823.00	23.00	
1	HDPE(T	1,825.00	57.00	1,037.00	30.00			1,037.00	30.00	
2	HDPE(T 2)	3,927.00	147.00	2,996.00	113.00			2,996.00	113.00	
3	HDPE(T 3)	9,997.00	316.00	2,771.00	97.00			2,771.00	97.00	
4	HDPE(T 4)	2,092.00	68.00	769.00	19.00			769.00	19.00	
	Subtotal in (m)	17,841.00	588.00	7,573.00	259.00	-	-	7,573.00	259.00	
	Total	20,082.00	656.00	8,191.00	276.00	-	-	8,396.00	282.00	41.81%
	Sewer Inlet	BoQ(n	0)	Up to Pre	Month	This	month	Total to) date	Progres s %
1	Sewer inlet	1,010.00			220.00		30.00		250.00	24.75
2	House connecti on	3,784.0	00		275		100.00		375.00	9.91

3.1.2STORM 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 stopped due to monsoon. The detail of the progress is shown in the table:



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

			L	ength in n	1		_	W	ork C	omplet	ed	Length	
S	Name of	Origin	Revise	Progress		Cum	Type of	Brick		RCC		of Covere	Rema
N	Drain	al	d	Previo us	This Month	1 4 •	Drain	m	M^3	m	M^3	d Drain in m	rks
1	CN2- CN3(Chya nghBaariN ala)	652.89	585	570	0	570	RCC, closed			570		570	
2	CN2- CN3(Chya nghBaariN ala)	132 nos piles	138	138	0	138 nos.							Piling works compl eted

3.1.3 ROADS AND LANES

Most of the roads/lanes in Biratnagar are in a poor state due to lack of periodic maintenance, and need improvement where as some of the roads are graveled and would benefit from upgrading. In the areas where drainage and sewerage works are proposed there will be significant impact on the existing roads. The Project has considered on design based on reinstatement, rehabilitation and upgrading of existing roads length 73.86 km. This month, the contractor has started work of R3, DSP Road and Rani. Some of the roads of the project has been completed and some of them are in the process of being upgraded and the summary is presented below.

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

	ъ			I	ength in m			Work Completed					
SN	Road Numbe r	Name of Road			Progr	ess	tal	Sub- base	Base	Asphalt	RC C	Paint	Remarks
	·		Original	Revised	Previous	This Month	Total	m	m	m	m	m	~
1	R42	Bhagwati Marg	218	218	218		218	218	218	123			
2	R5	College Road	970	970	650		650	650	650				
3	B2	Gauri Shankar Marg	2777.83	2777.83	2152		2152	2152	2152	1999.8	210		
4	R65	Satghumti Marg	282	320	320		320	320					
5	R107		173	215	215		215	215					
6	R107 a		50	50	50		50	50					
7	R104	VIP Marg	273	273	273		273	273	273	273			
8	R3A	Madhumara Marg	600	600	600		600	600	600	582			



9	В1	Kanchan Marg	1173	1173	1173		1173	1173	1106	1106	500	
10	R21	Pratibha Marg	1320	1320	950		950	950	950	689.6		
11	В3	Keshaliya Marg	1574	1574	1574		1574	1574	1627.75	1627.75		
12	S13		1617	1617	1417		1417	1417	1417	1433.3		
13	R12	Kanchha Dai Marg	1192	1192	837		837	837	837			
14	Rani site	Rani	4023	4023	2775	420	3195	2735	2122	1096		
15	R16	Satya Marg	604	604	604		604	604	604	542.1		
16	R26	Pasang Marg	617	654	654		654	654	654	215		
17	R28	Pustakalaya Marg	635	635	635		635	635	635	339.2		
18	R27	Peepal Marg	810	810	580		580	580	580	300		
19	R25	Devi Marg	599	580	580		580	580	580	561.7		
20	R24	Prabhat Marg	384.41	380	380		380	380	380	364.95		
21	R37	Banglamukhi Marg	420	477	477		477	477	477	200.7		
22	R7	Manakamana Marg	814	814	242	250	492	492	492			
23	R30	Shanti Marg	212	212	123.1		123.1		123.1	123.1		
24	R9	Fadindra Marg	123	123	119		119		119	119		
25	S11	Samrat Marg	660	660	660		660	660	504.6	504.6		
26	R22	Amar Marga	373.1	367.65	367.65		367.65	367.65	367.65	367.65		
27	R29	Shanti Marg	620	620	299	257	556	556	299	299		
28	R36	Gaurav Marg	218	218	220		220					
29	R33	Tarun Marg	285	285	171.5		171.5					
30	R64	Satya Narayan Marg	121	121	121		121	121				
31	R8			225	225		225	225				
32	N36			190	190		190	190				
33	R188	Shakti Marg	-	120	120		120	120				
34	R2	Main Road	3113.00		300	380	680	680	680			
35	T3 Line 6A	PanditMrghna th Marg	-	220	220		220	220				
36	T2 Line 24C	Nava Jyoti Marg	-	205	205		205	205				



37	T2 Line 24D	Nava Jyoti Marg	-	210	210		210	210					
38	R63 (DSP Road)	DSP Road	420	420	420	220	420	420	220				
39	R90	Shakti Marg	450	380	380	380	380	380	380				
40	R77	Arniko Marg	80	80	80		80	80					
41	R76	Mitra Marg	270	270	270		270	270					
42	R183	Nava Jyoti Marg	240	240	240		240	240					
43	T1 L16B	Xenial Front	210	210	210		210	210					
44	T1 L16A	Xenial South	140	140	140		140	140					
45	R114	Dharanidhar Marg	560	560	560		560	560	560	560			
46	R113	Kavi Lekh Marg	740	740	740		740	740	740	740			
47	R5a		370	370	370		370	560					
48	Rani site B		600	520	520		520	520	420				
49	R3	Dharamban Marg	1211.26	3441.26	2233	2230	2230	2230	2230			_	
50	T2 Line 27		80	80		80	80	300	300				
	Total				27070	4217	28454	27770. 7	23298. 1	14167. 5	210	500	

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

				Cate	egory			Length in r	n		Foo	otpath	
SN	Road Number	Name of Road	Type*		<i>8-</i> 7			Progr	ress			- · <u>-</u>	Rem arks
	1 (4.11.00)	11044		<3m	>3m	Original	Revised	Previous	This Month	Cumulative	m	M2	
1	B2	Gauri Shankar Marg	Precast block			2778	2777.8	1700	120	1820	1820	2548.00	
2	S11	Bhatta Chowk to Sankhar Chowk	Precast block			900	900	300	0	300	300	270	
3	B3(3)	Keshaliya Road	Precast block					0	500	500	500	600	
4	R16	Jatuwa	Precast block					0	400	400	400	440	



Table No:-4.2Road 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	Sub-grade	m	73,860.00	27,070.25	1,384.00	28,454.25	38.52%
2	Sub Base	m	73,860.00	26,386.65	1,384.00	27,770.65	37.60%
3	Base	m	73,860.00	18,398.10	4,900.00	23,298.10	31.54%
4	Prime	m	73,860.00	14,167.45	1,000.00	15,167.45	20.54%
5	Asphalt	m	73,860.00	14,167.45	-	14,167.45	19.18%
6	Paint	m	73,860.00	0.00	500.00	500.00	0.68%

3.1.4 ROAD SIDE DRAIN

Most of the roads under this project for upgrading is without drain or existing drain in poor condition. The project has provisioned drain at both sides or one side as per the 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 November, 2018.

					Length in n	ı		Work Con	npleted	
SN	Road	Name of			Prog	gress	al	Brick	RCC	Remarks
	Number	Road	Original	Revised	Previous	This Month	Total	m	m	
1	В1	Kanchan Marg	0	0	90	0	90	90		
2	R29	Shanti Marg	270	256.52	256.52	0	256.52	256.52		
3	N36		0	190	186	0	186	186		
4	R8		370	370	230	0	230	230		
5	R7	Devi Marg and Pipal Marg	155	155	89.575	0	89.575	89.575		
6	R63	DSP Road	418.79	418.79	198.8	100	298.8	298.8		
7	R9	Baglamukhi path	120	103.2	103.2	0	103.2	103.2		
8	S13	Udaya Marga	0	158.1	158.1	0	158.1	158.1		



9	N33		0	70	70	0	70	70	
10	R28	Pustakalaya Marg	340	278	278	0	278	278	
11	R90	Shakti Marg	320	475	475	0	475	475	
12	R114	Dharanidhar Marg	0	312.33	312.33	0	312.33	312.33	
13	R11	Om Shiv Marg	0	200	200	0	200	200	
14	R18		0	382.5	382.5	0	382.5	382.5	
15	R17		0	360.85	360.85	0	360.85	360.85	
16	R113	Kavi Lekhnath Marg	0	312.45	312.45	0	312.45	312.45	
17	R77	Arniko Marg	97	80.5	80.5	0	80.5	80.5	
18	R76	Mitra Marg	272	275	274	0	274	274	
19	N9	Devi Marga	0	222.7	222.7	0	222.7	222.7	
20	N4		0	170	147	0	147	147	
21	R33	Tarun Marg	0	265	264.48	0	264.48	264.48	
22	R36	Gaurav Marg	218	216.4	216.4	0	216.4	216.4	
23	R86	Janpath Marg	215	215	187	0	187	187	
24	R183	Nava Jyoti Marg	242	211	211	0	211	211	
25	R7a		77.81	68.55	68.55	0	68.55	68.55	
26	Rani site	Rani B	0	650	530	0	530	530	
27	Rani site	Rani A	0	300	270	0	270	270	
28	N3		0	120	110	0	110	110	
29	N5		0	40	40	0	40	40	
30	R21	Binayak Marga	0	390	390	0	390	390	
31	R2	Main Road	2060	2060	592.5	0	592.5	592.5	
32	T1L16B	Xenial Front	0	210	205.68	0	205.68	205.68	
33	T1L16A	Xenial South	0	160	160	0	160	160	
34	R75	Tintoliya Marga	135	135	255	0	255	255	
35	R122	Amar Marga	0	251	251	0	251	251	
36	R18 Branch		0	30	30	0	30	30	
37	R7(b)(Neuro to sidhartha chowk)	Siddhartha Marga	317	317	148.5		148.5	148.5	



38	R12	Sukra Path	0	953	350		350	350		
39	R42	Jahada Marga	0	150	171	0	171	171		
40	R6	Shahi Marg	460	430	430	0	430		430	
41	R21(a)	DharamBadh Junction	0	160	160	0	160	160		
42	R78	Binayak Marga	92	70	70	0	70	70		
43	R188	Shakti Marg		120	120	0	120	120		
44	R40	Brahma Kumari Marga	0	350	300	0	300	300		
45	Rani Site C		0	100	97.5	0	97.5	97.5		
46	Ranit Site D		0	131.45	131.45	0	131.45	131.45		
47	T3L21	Moti Marga	380	380	361	0	361	361		
48	T3L39	Gaheli Marga	0	278	270	0	270	270		
49	T3 Line 39A		0	90	90	0	90	90		
50	T3 L39B		0	50	50	0	50	50		
51	T2L27	Bhumi Prashasan Junction	92	80	80	0	80	80		
52	T4 Line 1	Sailesh Marg	0	197	100	0	100	100		
53	N2			100	95	0	95	95		
54	T2 Line 26E	College Road	80	80	80	0	80	80		
55	T2 Line 18C	Maisthan Marga	0	105	102	0	102	102		
56	T2Line 18A	Makalu Marga	90	90	60	0	60	60		
57	R6 (T3L11i)		0	275	138	0	132.5	132.5		
58	R9(T3L11k	Tathasthu Marga	0	200	200	0	180	180		
59	R45 (T3 Line 10D)	Dadhiram Marga	302	302	200	50	250	250		
60	R9, T2 L19	Fanindra Marga	0	225	147.5	35	157.5	157.5		
61	R7c (Neuro to Shanti Chowk	Siddhartha Marga	240	605	352	253	490	490		
62	R84	School Marga	673	391	270	193	287.5	287.5		
63	R85	Lekhanath Marga	162	162	145		145	145		



64	R87	Byas Marga	160	160	150	20	170	170		
65	Rani B (Bus park)		0	120	68		68	68		
66	R8(a)	Madhumara Marg	218	218	141		141	141		
67	Rani E		85	85	85		85	85		
68	R102	Hamro Marg			92.5		132.5	132.5		
69	R10	Ram Marga	1092.41	180	40	592.41	632.41	632.41		
70	N10	APF	154.48	154.48	0	154.48	154.48	154.48		
71	R23	Bani Marg	226.12	226.12	0	160	160	160		
72	R103	Vibuti Marga	173	173	0	50	50	50		
73	P1, T3 L 6A	Pandit Meghnath Marga	280	280	0	50	50	50		
74	T2 L 24 C& D	Hanuman Das Marga	176.93	176.93	0	110	110	110		
	Total				13504.59	1767.89	14971.48	14541.48	430.00	

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.

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



Disposal of Spoil and Construction Waste.

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

The contractor has already provided the safe tipping sites and the excess materials are dumped as per the approved tipped sites.

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.

Labour camps are provided at per the requirement at various locations. Visit to the Monitoring of the labour camp is done frequently and found to be satisfactory. The details of labor camp is provided in the Annex.

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

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

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



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

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

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.

3.6 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 BiratnagarMetropolitan City (BMC). Establishment and functioning of Social Safeguard Desk in PIU is a major milestone of social development aspect which has been effective to address all social/community development issues and concerns with active initiation of the DSC. Local labors have been deployed in civil construction works (i.e. in Road side drain / Sub grading works). The Engineer has issued the format of Social Safeguard Monitoring plan which is attached here with.

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:

Although many grievances were received verbally, only 9 grievances have been registered formally which have immediately been addressed and resolved.

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 19 October, 2018 and 20 October, 2018 following issues were discovered.

- i. The use of Personal Protection Equipment (PPE) was very few and thus very unsatisfactory.
- ii. Proper Barricade was not done as well as caution signs and signals were not sufficiently used in Drainage and Sewer work Locations.
- iii. Tiolet at labour camp is found unhygienic.Dustbin not provided.
- iv. Tests were done to find the quality of drinking water in labor camp and the result has been attached hereby.
- v. Information on the safety measures were not properly displayed on the information board in some yards.

Considering above mentioned issues, the Contractor was instructed to use PPE, Barricades and proper signs and signals at working site, hygienic toilet, water test, dustbin. The implementation of Social and Environmental Safeguard measures during this month was found partially satisfactory. The contractor has conducted water quality test and the report is attached in the Annex.

Status of Relocation of Services

Relocation of Electric poles was done at R90, Rani and B1 Road. Similarly, relocation of water supply pipe lines were done at various locations at R6, R2, T3 Line 39, T3 Line 21, N2, R84 etc

Status of Labor at Site

	LABOUR		COMPOSITION		ETHNIC COMPOSITION				
LABOUR CLASS	SKILLE D	UNSKILLE D	MAL E	FEMAL E	JANJAT I	DALI T	MUSLI M	MADHES I	BRAHMIN/CHHET RI
LOCAL	16	35	51	2	0	9	7	37	
NON LOCAL	53	157	208	2	77	20	5	104	4
INDIAN	38	115	153	0	5	19	39	90	
TOTAL	107	309	412	4	82	48	51	231	4



3.7 FINANCIAL PLAN

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

3.7.1DISBURSEMENT RECORDS IN CONSTRUCTION

Table:-5 DISBURSEMENT RECORDS in CONSTRUCTION

S.No	Description	Submission date	Submitted Amount(NRs)	Remarks
1	IPC 01	15 th October 2017	339,105,000.00	Mobilization Advance
2	IPC02	2 nd April 2018	261,501,492.21	
3	IPC 03	1st July 2018	316,582,708.58	
4	IPC 04	1st October 2018	105,227,887.17	

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:

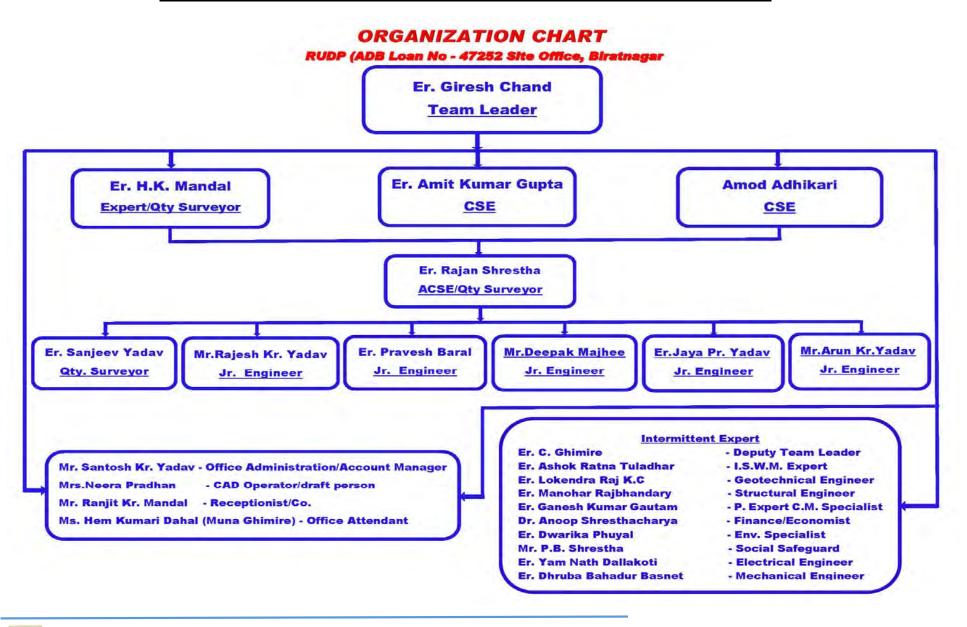
- Detailed Design and Procurement Assistance Phase for integrated solid waste management design (ISWM)
- Monthly progress report and quarterly progress report.
- Semi- annual Environmental monitoring report.
- Semi-annual Safeguard monitoring report.
- Annual progress report including annual Environmental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







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 RatnaTuladhar	ISWM (Designer)	6 th Sep 2017	Intermittent
3	DwarikaPhuyal	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	1st Nov 2017	
6	J.P Yadav	Construction Supervision Engineer	1st March 2018	Discontinued the service since 25 th April, 2018.
7	A.K Gupta	Construction Supervision Engineer	1st March 2018	
8	Nishant K.C.	Construction Supervision Engineer	2 nd April 2018	Discontinued the service since 1stOctober, 2018.
9	Amod Adhikari	Construction Supervision Engineer	7 th Oct 2018	
10	Rajan Shrestha	ACSE/Quantity Surveyor	7 th Nov 2017	
11	Rajesh Kumar Yadav	Junior Engineer-1	6 th Sep 2017	
12	Sanjeev Yadav	Qty Surveyor	5 th Nov 2017	
13	Santosh Kumar Yadav	Office Administration/Account Manager	6 th Sep 2017	
14	Hem KumariDahal (MunaGhimire)	Office Attendant	6 th Sep 2017	
15	Ranjit Kumar Mandal	Receptionist	10 th Dec 2017	
16	PraveshBaral	Junior Engineer-2	10 th Dec 2017	
17	J.P Yadav	Junior Engineer-3	1st March 2018	
18	Deepak Majhi	Junior Engineer-4	1st March 2018	
19	Arun Kumar Yadav	Junior Engineer-5	16 th March 2018	
20	Neera Pradhan	CAD operator/Draft Person	10 th Dec 2017	
21	RamjiGhimire	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.

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 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 Progress Achieved Till date

	Target	This Month	Achieveme	ent This Month	Lo	eading	L	agging	
Month	Monthly	Accumulated	Monthly	Accumulated	Monthly	Accumulated	Monthly	Accumulated	Rema rks
July-18	0.15%	25.17%	0.78%	25.18%	0.63%	0.01%			Leadi ng
August-	0.15%	25.32%	2.32%	27.50%	2.17%	2.18%			Leadi ng
Septemb er-18	5.71%	31.03%	1.22%	28.72%				-2.31%	Laggi ng
October- 18	7.72%	38.75%	2.30%	31.03%				-7.72%	Laggi ng
Novemb er-18	7.72%	46.47%	5.20%	36.22%		-10.25%		-10.25%	Laggi ng

5.3KeyEvents

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

Table 8: KEY DATES of EVENTS / ACTIVITIES

S. No.	Date	Activities/Events	Remarks
1	07 th 10 th Nov 2018	Tihar Holiday	



6 DETAILS OF PRE CAST ACTIVITIES.

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

	Physical Progress till November 2018										
			Pro	gress							
S.N.	Description	Unit	BoQ	Up to Previous month (RM.)	This Month (RM.)	Total to Date (RM.)	Remarks				
1	Precast Slab	No		35,106.00	2,650.00	37,756.00	Under progress				
2	Kerb Stone	Rm	147,729.68	65,285.00	3,500.00	68,785.00	46.56%				

Physical Progress till November- 2018

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

November, 2018

				Progress			
S.N.	Description	Diameter (mm)	BoQ (RM)	Up to Previous month (RM.)	This Month (RM.)	Total to Date (RM.)	Remarks
1	RCC Pipe	300	336.00	336.00	ı	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						

Physical Progress till November- 2018

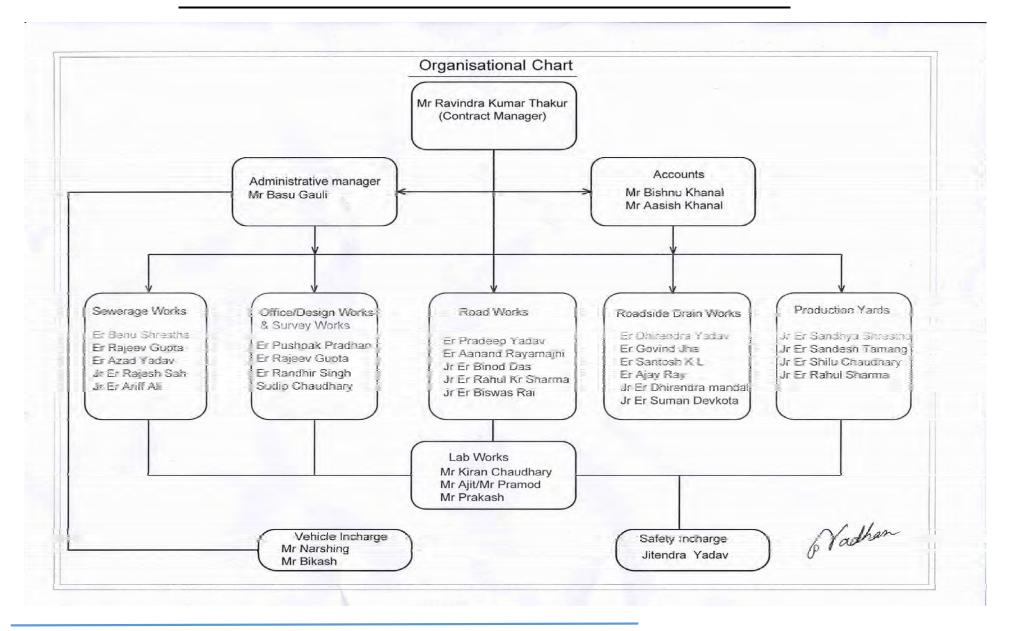
Table 11: PHYSICAL PROGRESS in PRODUCTION OF HDPE Pipe till, November, 2018

				Progr	ess		
S.N.	Description	Diameter (mm)	BoQ (RM)	Up to Previous month (RM.)	This Month (RM.)	Total to Date (RM.)	Remarks
1	HDPE Pipe	110.00	1,987.20	1,987.20	500	2,487.20	
2	HDPE Pipe	200.00	16,656.00	10,500.00	6000	16,500.00	Under process
3	HDPE Pipe	250.00	115.00	450.00	-	450.00	
	Total						

Physical Progress till November- 2018

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

				Prog	ress		
S.N.	Description	Diameter (mm)	BoQ (RM)	Up to Previous month (RM)	This Month (Rm.)	Total to Date (RM.)	Remarks
1	UPVC Pipe	160.00	5,050.00	4,500.00	300	4,800.00	
2	UPVC Pipe	110.00	5,050.00	4000.00	-	4,000.00	





7 CONTRACTOR'S MANPOWER

Table 13: CONTRACTOR'S KEY STAFFS in November, 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	-	14	
8	Sub- Engineer	-	12	
9	Accountant	-	2	
10	Lab Technician	-	1	
11	Store Keeper	-	2	
12	Vehicle Incharge		2	
13	Skilled Labors		108	
14	Unskilled Labors		212	

8 CONTRACTOR'S EQUIPMENT

Table 12: CONTRACTOR'S EQUIPMENT

	Equipment Type and	Min Number	ZHONGHENG	
S.No	Equipment Type and Characteristics	required as per Contract	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	2	
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	13	
12	Chips spreader	1	-	
13	Bitumen decanter minimum 4000 Litres. (preheating container) Air compressor	2	2 2	
14	Excavator (200 above)	5	2	Backhoe loader-9 nos.
15	Tipping Trucks	15	25	
16	Service vehicle	2	5	
17	Survey equipment (Total station with accessories)	1	1	
18	Thedolite	2	-	
19	Levelling	5	18	
20	Mobile Generator 15-20 Kva	3	11	
21	Mixer Machine	6	10	
22	Concrete Batching Plant	1	-	
23	Concrete pump	1	-	



S.No	Equipment Type and Characteristics	Min Number required as per Contract	ZHONGHENG CONSTRUCTION Group	Remarks
24	Drain cleaner/ Nala cleaner	2	-	
25	Broomer	-	2	
26	Motor Bike	-	15	
27	Plate Compactor	-	6	
28	Water Pump	-	7	

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 production works at contractor's yard.
- Side drain works.
- Laying of kerb Stone, cover slab and interlocking tiles.
- Sewer inlet and House Connection works.



ANNEX-1: PHOTOGRAPHS OF NOVEMBER, 2018



Sewer inlet work T3L39



House connection works at R85





Meeting held at Municipality Office



Road Side Drain at R7





Sub-base laying at Rani



Cube test for concrete works





Traffic Control R3



Road Lines Painting at B1





Teak Drain at R3



Madhumara Site, Ring Production





Labors at R2



Relocation of Electric poles at R2





Madhumara Yard



Slab production at DDC Yard



ANNEX-2: MINUTES OF MEETING NOVEMBER, 2018

Building Design Authority (P) Ltd



in Joint Venture with

B.N.ConsultancyPvt. Ltd and Bus Engineers & architects (P) Ltd, Kathmandu, Nepal REGIONAL URBAN DEVELORMENT PROJECT (RUDP), ADB Loan No: 47252

Biratnagar Metropolitan city, Biratnagar

MINUTES OF MEETING NO. - 20

Contract: RUDP/ICB/BRT-02

Date: November 1,2018

Time: 9:30 PM

Venue: TL Office, Biratnagar

Attendance

Employer:

1. Mr. Bharat Neupane, Project Manager, Pl

2. Mr. Anil Singh, Project Engineer, PIU

Brents

Consultant:

1. Mr. Giresh Chand, Team Leader

2. Mr. Amit Kumar Gupta, CSE

3. Mr. H K Mandal, Expert/Quantify Surveyor

Contractor:

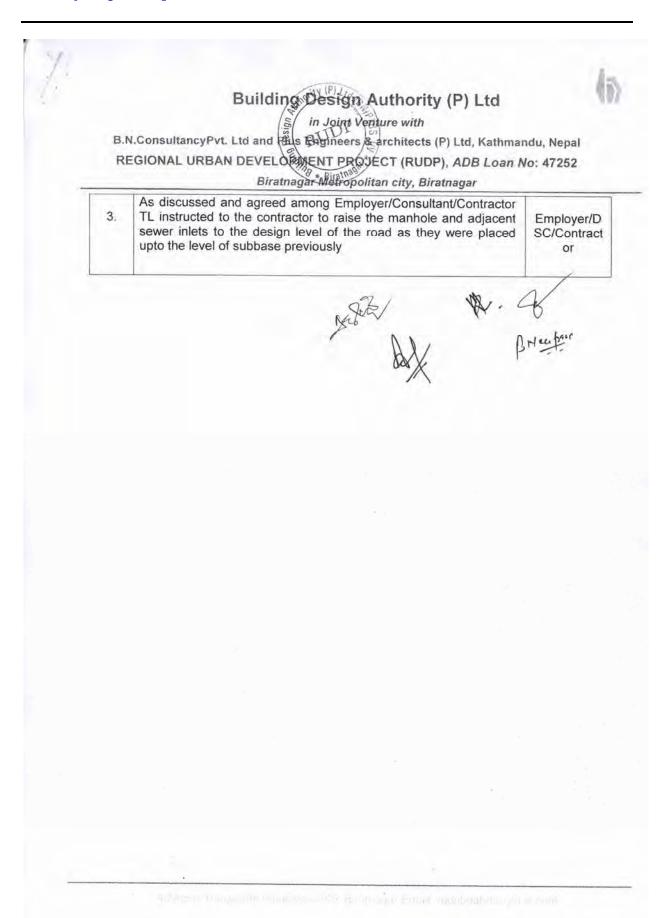
- Mr. R.K Thakur, Contract Manager, Zhongheng
- 2. Mr. Ujjwal Prasai , Project Manager, CTCE/Kalika
- 3. Mr. Mahesh Subedi, Engineer, CTCE/Kalika

TL welcomed all participants in the meeting. Following matters were discussed and decided:

S.N.	Minutes	Action by
1.	PM as well as TL said that although RUDP is the continuation of STIEUP, proper coordination was lacking. The Contractor informed that both works had been carried out with proper coordination and would run with more coordination in coming days.	DSC/Contra
2.	As discussed and agreed by the employer earlier, TL advised to the contractor of RUDP for direct connection of House Chamber with Manhole as per site conditions.	Employer/D SC/Contract

Able bace







ANNEX-3: Laboratory Test Results of November, 2018

Attached

			REGIC		nagar l	EVEL Metropo RUDP/I	olitan C	ity	PROJ	ECT			
			5	Summary Sheet of	Month	ly Test R	eport of	Cancrete	Sand				
										Mo	nth	Novem	nber
										Ye	ar	201	
										Typ- Mate		Cancret	e Sand
S.n.	Lab.Ref no.	Date of	Location of	C CC 1		Si	eve Size in	mm # % Pa	ussing by w	eight		Ciav	
MI.	LEDINCI NO.	Test	Sample	Source of Sample	15	4,75	2.36	1.18	0.600	0.300	0.150	Content%	Remarks
0	RUBP-CS-190	1-Nov-18	DDC Yard	Chisane Khola	100.00	/92.68	65.91	/58.22	22.02	/(3.73	6.83	1 /125	
2	RUDP-CS-191	3-Nov-18	2.6	Chisang Khola	100.00	J92.31	64.63	f55.32	/23.85	14.54	6.74	1.88	
3	RUDP-CS-192	3-Nov-18	N.10	Chisane Khola	100.00	\$2.64	J62.35	62.75	/20.23	11.62	4.84	1.50	
4		3-Nov-18	R-3H2	Chisang Khola	100.00	95.11	/62.85	/52.63	/22.60	(12.38	16.07	1.70	
5	RUDP-CS-194	4-Nov-18	2.84	Chisang Khola	100.00	791.96	/62.86	154.06	124.58	17.69	75.95	/1.70	
6	RUDP-CS-195	8-Nov-18	3-32	Chisang Khola	100.00	192.11	162.33	/53.58	/22.46	/16.27	15.92	1.88	
3	RUDP-CS-195	15-Nov-181	8-63	Chisang Khoka	100.00	792.69	(67.70	40.19	19.55	13.03	/5.50	1 /1.48	
8	RUDP-CS-197	16-Nov-181	R-23	Chisang Khoka	100.00	91.65	66.52	/34.67	[18.91	(12.35	75.11	/232	
9	RUDP-CS-198	17-Nov-18	T3L24D	Chisang Khela	100.00	/92.13	69.32	41.50	/24.06	A4.94	17.87	/132	
10	RUDP-CS-199	19-Nov-181	kesin-vard	Chisang Khola	100.00	/92.56	/63.49	/39.18	/25.83	/34.87	77.63	1.55	
II.	RUDP-CS-2001	20-Nov-18	Madhumara-vard	Chisana Khela	100:00	64.60	74.58	762.61	(20.12	41.68	₹5.30	1 1.50	
12	RUDP-CS-201	20-Nov-18	R-103	Chisang Khola	100.00	/52.11	11.97	45.39	(27.91	/35.17	7.28	/ 2.17	
13 [RUDP-CS-202	21-Nov-18	T3L24C	Chisang Khola	100.00	795.73	/78.75	(57.36	/28,47	(17.42	/8.76	/190	
14	RUDP-CS-203	22-Nov-18	Madinumera-yard	Chisang Khola	100.00	/91.78	/11.78	61.50	/21.78	12.62	6.07	132	
15.	RUDP-CS-204	26-Nov-18	32-3	Chisang Santa	100:00	\$3.96	/81.32	A1.61	/16.52	/9.85	/4.13	V1,29	
16	RUDP-CS-205	25-Nov-18	DDC Yard	Chisang Khola	100,00	55.06	(74.50	/63.91	/20.26	/13.21	/6.55	11.42	
								1	1	*			
1													^
											J		
				Spec Limit:	100	90~100	60~95	30~70	15~34	5~20	0~10	3%	
			Contractor			1				T14	,		
			Contractor							Consultan			
7	HONGHENO	NAL	B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU-NEPAL										
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Chec	ked By			Submitted By		Verified By				Approved By			
Ingi	neer			Contract Manag	ger Oty Engineer/CSE Team Leader					er			



			REGIO	NAL URBA					PRO.	JECT		
				Biratn	agar M	etropol	itan C	City				
				Contra	ct No:- F	UDP/IC	B/BRT	r-02				
			· ·				E. Charle	43.43				
			2	ummary Sheet o	I Month	y 1 est R	eport o	of 20mn				
									Mo		- 6	November
									Ye	ear		2018
									Type of	Material		20 mm Agg
S.n.	Lab.Ref no.	Date of	Location of	Source of Sample		Size in mm			L.A.A.%	Fland El	% TA.LV.3	Remarks
	DEIDD OF 100	resting	Sample	1	40	20	10	4.75	1	1		
1	RUDP-CA-190	3-Nov-18	Madhumara-Yard	Chisang Khola	100.00	97.76		2.90	29.78	18,64/17		
2	RUDP-CA-191	4-Nov-18	R-6	Chisang Khola	100.00	96.97	45.47	14.33	127.56	19.65/17	1.0	_
3	RUDP-CA-192	5-Nov-18	N-10	Chisang Khola	200.00	97.53	88.95	4.33	25,90	28:91/19		
4	RUDP-CA-193	6-Nov-18	R-102	Chisang Khola	100.00	.96.49	/35,28	16.54	26/04	18.76/17		
5	RUDP-CA-194	7-Nov-18	R-10	Chisang Khola	100.00	/96.25	37.87	(4.70)	25.80	19.17/17		
6	RUDP-CA-195 I	8-Nov-18	R-84	Chisang Khola	100.00	(97.22	/32.60	/2/88	26.30	¥18.43/16.		
7	RUDP-CA-196	11-Nov-18	R-12	Chisang Khola	100.00	₹95.37	(32.60	/3.25	/25.80	19,31/17.		į.
8	RUBP-CA-197	Hi-Nov-38	R-63	Chisang Khoia	100.00	796.01	/52.47	(3.23	31.50	/18.75/17		T.
9	RUDP-CA-198	12-Nov-38	R-1	Chisang Khola	600.00	796.44	(34.69	1237	(27.18	/21.18/19.	1.5	į.
10	RUDP-CA-199	15-Nov-48	R-23	Chisang Khola	100.09	Ø7.71	40.42	/3.89	(25.82	20.57/18		
12	RUDP-CA-200	16-Nov-18	T3L24D	Chisang Khola	100.00	196.78	/30.50	6.27	/26.24	19 96/18.		Î
-	RUDP-CA-201	18-Nov-18	R-45	Chisang Khola	100.00	97.25	34.10	7 2	26.00	/22.91/20.		
13	RUDP-CA-202	19-Nov-18	T21.246	Chisang Khola	100.00		31.93	/2.93	23.80	23.65/21.		1 E
14	RUDP-CA-203 RUDP-CA-204	20-Nov-18	DDC-Yard	Chisang Khola	100.00	87.29	\$5.63	4 .19	25.50	/22.91/20.		
ī		23-Nov-18	R-3	Chisang Khota	100.00	97.18	39.64	(3.35	₹30.02	21.15/19.		1
16	RUDP-CA-205	26-Nov-18	Koshi-yard	Chisang Khola	100.06	96.78	(44.52	√3.08	32.30	20.63/18.	78 23.54	İ
				Spec. Limit :	100	95~100	25~55	0~10	<35	< 25	< 25	
			Consultant									
	ZHONGHEN	L .	BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WI CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITEC LTD, KATHMANDU, NEPAL						VENTURE WITH B.			
60	adhan		Manage & A					B. A.				
	eked By		2	Submitted By	1	Verified	- 1	Y			A	pproved By
ngi	neer		(Contract Manage	er	1.0					ream Leader	



	101	REGIO		Biratn	AN DEVEL lagar Metrop let No:- RUDP/ leet of Concrete	olitan Cit	ty 02	OJECT		/	/
								Month		Nov	ember
								Year		2	018
					_	-	Ty	pe of Material		Conc	c. Cube
S.N.	Location	Lab Ref.no.	Type of Cement	Brand of Cement	Source of Sand+Agg.	Date of Casting		f Testing		n, N/mm2	Concret
1	R-7	RUDP-1083	Salimar	OPC		10.10	7 Days	28 Days	7 Days	28 Days	
2	R-9	RUDP-1084	Salimar	OPC	Chisang Khola	4-Oct-18	11-Oct-18	1-Nov-18		₹22.38	M20
3	R-45	RUDP-1085	Salimar	OPC	Chisang Khola	4-Oct-18	11-Oct-18	1-Nov-18		22.13	M20
4	R-102	RUDP-1086	Salimar	OPC	Chisang Khola	4-Oct-18	11-Oct-18	1-Nov-18		23.48	M20
5	T3L39	RUDP-1087	Salimar	OPC	Chisang Khola	4-Oct-18	11-Oct-18	1-Nov-18		/22.76	M20
6	R-84	RUDP-1088	Salimar	OPC	Chisang Khola	4-Oct-18	11-Oct-18	1-Nov-18		21.48	M20
7	R-12	RUDP-1089	Salimar		Chisang Khola	4-Oct-18	11-Oct-18	1-Nov-18		22.13	M20
8	R-7	RUDP-1099	Salimar	OPC	Chisang Khola	4-Oct-18	11-Oct-18	1-Nov-18		22.43	M20
9	R-102	RUDP-1090	Salimar	OPC	Chisang Khola	5-Oct-18	12-Oct-18	2-Nov-18		23.78	M20
10	Koshi Yard	RUDP-1091	Salimar	OPC	Chisang Khola	5-Oct-18	12-Oct-18	2-Nov-18		21.33	M20
11	R-84	RUDP-1092	Salimar	_	Chisang Khola	5-Oct-18	12-Oct-18	2-Nov-18		22.80	M20
12	R-45			OPC	Chisang Khola	5-Oct-18	12-Oct-18	2-Nov-18		24.46	M20
13	R-102	RUDP-1094 RUDP-1095	Salimar	OPC	Chisang Khola	6-Oct-18	13-Oct-18	3-Nov-18		21.98	M20
14	R-87	RUDP-1095	Salimar	OPC	Chisang Khola	6-Oct-18	13-Oct-18	3-Nov-18		/22.73	M20
15	R-84		Salimar	OPC	Chisang Khola	6-Oct-18	13-Oct-18	3-Nov-18		23.41	M20
16	R-12	RUDP-1097	Salimar	OPC	Chisang Khola	6-Oct-18	13-Oct-18	3-Nov-18		21.90	M20
17		RUDP-1098	Salimar	OPC	Chisang Khola	6-Oct-18	13-Oct-18	3-Nov-18		21.75	M20
18	R-7	RUDP-1099	Salimar	OPC	Chisang Khola	6-Oct-18	13-Oct-18	3-Nov-18		/21.45	M20
19	Madhumara Yard	RUDP-1100	Salimar	OPC	Chisang Khola	6-Oct-18	13-Oct-18	3-Nov-18		26.64	M25
20	R-45	RUDP-1101	Salimar	OPC	Chisang Khola	7-Oct-18	14-Oct-18	4-Nov-18		(22.20	M20
21	R-45	RUDP-1102	Salimar	OPC	Chisang Khola	7-Oct-18	14-Oct-18	4-Nov-18		23.03	M20
_	R-7	RUDP-1103	Salimar	OPC	Chisang Khola	7-Oct-18	14-Oct-18	4-Nov-18		22.50	M20
22	R-9	RUDP-1104	Salimar	OPC	Chisang Khola	7-Oct-18	14-Oct-18	4-Nov-18		23.48	M20
23	R-102	RUDP-1105	Salimar	OPC	Chisang Khola	7-Oct-18	14-Oct-18	4-Nov-18		22.43	M20
24	T3L39	RUDP-1106	Salimar	OPC	Chisang Khola	7-Oct-18	14-Oct-18	4-Nov-18		21.83	M20
25	R-87	RUDP-1107	Salimar	OPC	Chisang Khola	7-Oct-18	14-Oct-18	4-Nov-18		22.43	' M20
26	R-12	RUDP-1108	Salimar	OPC	Chisang Khola	7-Oct-18	14-Oct-18	4-Nov-18		22.28	M20
27	R-45	RUDP-1109	Salimar	OPC	Chisang Khola	7-Oct-18	14-Oct-18	4-Nov-18	-	23.10	M20
28	T3L111	RUDP-1110	Salimar	OPC	Chisang Khola	7-Oct-18	14-Oct-18	4-Nov-18	-	22.00	M20
29	R-102	RUDP-1111	Salimar	OPC	Chisang Khola	7-Oct-18	14-Oct-18	4-Nov-18		22.31	M20
30	Rani Site	RUDP-1112	Salimar	OPC	Chisang Khola	8-Oct-18	15-Oct-18	5-Nov-18		(22.73	
31	R-87	RUDP-1113	Salimar	OPC	Chisang Khola	8-Oct-18	15-Oct-18	5-Nov-18		23.13	M20
32	Madhumara Yard	RUDP-1114	Salimar	OPC	Chisang Khola	8-Oct-18	15-Oct-18	5-Nov-18		/	M20
33	T3L111	RUDP-1115	Salimar	OPC	Chisang Khola	9-Oct-18	16-Oct-18	6-Nov-18		27.19	M25
34	R-102	RUDP-1116	Salimar	OPC	Chisang Khola	9-Oct-18	16-Oct-18	6-Nov-18		22.83	M20
35	R-9	RUDP-1117	Salimar	OPC	Chisang Khola	9-Oct-18	16-Oct-18	6-Nov-18	- (24.26	M20
36	Rani Site	RUDP-1118	Salimar	OPC	Chisang Khola	9-Oct-18	16-Oct-18	6-Nov-18		22.00	M20
37	Madhumara Yard	RUDP-1119	Salimar	OPC	Chisang Khola	9-Oct-18	16-Oct-18	6-Nov-18	-	21.93	M20
38	DDC-yard	RUDP-1120	Salimar	OPC	Chisang Khola	9-Oct-18	16-Oct-18	6-Nov-18		32.25	M30
39	Rani Site	RUDP-1121	Salimar	OPC	Chisang Khola		17-Oct-18	7-Nov-18	- 4	23.14	M20
IN	ZHONGHENG CO TERNATIONAL	ONSTRUCTION ENGINEERIN	ON GROUNG CO. L	P	BUILDING WITH B.N. C	DESIGN A	UTHORIT	Y (P) LTD I	N JOIN	NGINER	M20 URE ERS &
heckengine	adhar ed By		Submitte Contract M		Verified By	March	/.		Ap	proved F	



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

								Month		Nov	ember
								Year		2	018
						X	Ty	pe of Material		Conc	. Cube
S.N.	Location	Lab Ref.no.	Type of Cement	Brand of	Source of Sand+Agg.	Date of Casting	Date of	Testing	Strength	, N/mm2	Concrete
			Comen	Cement	Said Agg.	Casting	7 Days	28 Days	7 Days	28 Days	Grade
40	T3L111	RUDP-1122	Salimar	OPC	Chisang Khola	10-Oct-18	17-Oct-18	7-Nov-18		(21.55	M20
41	R-7	RUDP-1123	Salimar	OPC	Chisang Khola	10-Oct-18	17-Oct-18	7-Nov-18		(22.83	M20
42	DDC-yard	RUDP-1124	Salimar	OPC	Chisang Khola	10-Oct-18	17-Oct-18	7-Nov-18		23.13	M20
43	R-7	RUDP-1125	Salimar	OPC	Chisang Khola	10-Oct-18	17-Oct-18	7-Nov-18		23.44	M20
44	Rani Site	RUDP-1126	Salimar	OPC	Chisang Khola	11-Oct-18	18-Oct-18	8-Nov-18		22.68	M20
45	R-7	RUDP-1127	Salimar	OPC	Chisang Khola	11-Oct-18	18-Oct-18	8-Nov-18		22.23	M20
46	R-9	RUDP-1128	Salimar	OPC	Chisang Khola	11-Oct-18	18-Oct-18	8-Nov-18		23.29	M20
47	R-84	RUDP-1129	Salimar	OPC	Chisang Khola	11-Oct-18	18-Oct-18	8-Nov-18		21.78	M20
48	Madhumara Yard	RUDP-1130	Salimar	OPC	Chisang Khola	11-Oct-18	18-Oct-18	8-Nov-18		26,68	M25
49	Madhumara Yard	RUDP-1131	Salimar	OPC	Chisang Khola	11-Oct-18	18-Oct-18	8-Nov-18		/32.21	M30
50	Rani Site	RUDP-1132	Salimar	OPC	Chisang Khola	12-Oct-18	19-Oct-18	9-Nov-18		21.98	M20
51	R-12	RUDP-1133	Salimar	OPC	Chisang Khola	13-Oct-18	20-Oct-18	10-Nov-18	1	22.28	M20
52	Rani Site	RUDP-1134	Salimar	OPC	Chisang Khola	13-Oct-18	20-Oct-18	10-Nov-18		23.48	M20
53	R-102	RUDP-1135	Salimar	OPC	Chisang Khola	13-Oct-18	20-Oct-18	10-Nov-18		/22.73	M20
54	DDC-yard	RUDP-1136	Salimar	OPC	Chisang Khola	13-Oct-18	20-Oct-18	10-Nov-18		122.43	M20
55	R-12	RUDP-1137	Salimar	OPC	Chisang Khola	14-Oct-18	21-Oct-18	11-Nov-18		22.20	M20
56	Madhumara Yard	RUDP-1138	Salimar	OPC	Chisang Khola	14-Oct-18	21-Oct-18	11-Nov-18		62.75	M25.
57	Madhumara Yard	RUDP-1139	Salimar	OPC	Chisang Khola	14-Oct-18	21-Oct-18	11-Nov-18		32.81	- M30
58	R-12	RUDP-1140	Salimar	OPC	Chisang Khola	14-Oct-18	21-Oct-18	11-Nov-18		/22,80	M20
59	R-12	RUDP-1141	Salimar	OPC	Chisang Khola	28-Oct-18	4-Nov-18	25-Nov-18	16.11	/22.05	M20
60	R-7	RUDP-1142	Salimar	OPC	Chisang Khola	28-Oct-18	4-Nov-18	25-Nov-18	-	23.41	M20
61	R-84	RUDP-1143	Salimar	OPC	Chisang Khola	29-Oct-18	5-Nov-18	26-Nov-18	(16:04	123.1	M20
62	DDC-yard	RUDP-1144	Salimar	OPC	Chisang Khola	30-Oct-18	6-Nov-18	27-Nov-18	/16.63	(22.43	M20
63	Koshi yard	RUDP-1145	Salimar	OPC	Chisang Khola	31-Oct-18	7-Nov-18	28-Nov-18	16.78	23.18	M20
64	R-7	RUDP-1146	Salimar	OPC	Chisang Khola	1-Nov-18	8-Nov-18	29-Nov-18	15,22	(22.65	M20
65	R-10	RUDP-1147	Salimar	OPC	Chisang Khola	1-Nov-18	8-Nov-18	29-Nov-18	16.26	/22.13	M20
66	R-102	RUDP-1148	Salimar	OPC	Chisang Khola	2-Nov-18	9-Nov-18	30-Nov-18	(16.71	22.05	M20
67	R-84	RUDP-1149	Salimar	OPC	Chisang Khola	2-Nov-18	9-Nov-18	30-Nov-18	/16.71	(21.9	M20
68	R-6	RUDP-1150	Salimar	OPC	Chisang Khola	2-Nov-18	9-Nov-18	30-Nov-18	11.08	16.56	M15
69	R-12	RUDP-1151	Salimar	OPC	Chisang Khola	2-Nov-18	9-Nov-18	30-Nov-18	(16.71	(23.63	M20
70	N-10	RUDP-1152	Salimar	OPC	Chisang Khola	2-Nov-18	9-Nov-18	30-Nov-18	15.81	(23.1	M20
71	R-10	RUDP-1153	Salimar	OPC	Chisang Khola	2-Nov-18	9-Nov-18	30-Nov-18	14.69	122.95	M20
72	R-102	RUDP-1154	Salimar	OPC	Chisang Khola	2-Nov-18	9-Nov-18	30-Nov-18	/16.71	/22.05	M20
73	Madhumara Yard	RUDP-1155	Salimar	OPC	Chisang Khola	2-Nov-18	9-Nov-18	30-Nov-18	17.23	/26.57	M25
74	R-12	RUDP-1156	Salimar	OPC	Chisang Khola	2-Nov-18	9-Nov-18	30-Nov-18		12L52	M20
75	Madhumara Yard	RUDP-1157	Salimar	OPC	Chisang Khola	2-Nov-18	9-Nov-18	30-Nov-18	17.45	(27.83	M25
76	R-7	RUDP-1158	Salimar	OPC	Chisang Khola	3-Nov-18	10-Nov-18	1-Dec-18	16.11	201100	M20
77	R-6	RUDP-1159	Salimar	OPC	Chisang Khola	3-Nov-18	10-Nov-18	1-Dec-18	/11.53		M15
78	R-102	RUDP-1160	Salimar	OPC	Chisang Khola	3-Nov-18	10-Nov-18	1-Dec-18	(15.74		M20
79	N-10	RUDP-1161	Salimar	OPC	Chisang Khola	3-Nov-18	10-Nov-18	1-Dec-18	(16.04		M20
80	DDC-yard	RUDP-1162	Salimar	OPC	Chisang Khola	4-Nov-18	11-Nov-18	2-Dec-18	14.62		M20
		ontractor			2				THE PERSON NAMED IN		***************************************

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

Wadhan

Submitted By

Verified By Contract Manager Qty Engineer/CSE

Approved By

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

								Month		Nov	ember
								Year		2	018
-		_		-			Ty	pe of Material		Conc	c. Cube
S.N.	Location	Lab Ref.no.	Type of Cement	Brand of	Source of Sand+Agg.	Date of Casting	Date of	Testing	Strength	n, N/mm2	Concrete
1			Cemen	Cement	Salu Agg.	Casting	7 Days	28 Days	7 Days	28 Days	Grade
81	R-7	RUDP-1163	Salimar	OPC	Chisang Khola	4-Nov-18	11-Nov-18	2-Dec-18	15.96		M20
82	N-10	RUDP-1164	Salimar	OPC	Chisang Khola	4-Nov-18	11-Nov-18	2-Dec-18	14.32		M20
83	Koshi Yard	RUDP-1165	Salimar	OPC	Chisang Khola	4-Nov-18	11-Nov-18	2-Dec-18	14.62		M20
84	R-7	RUDP-1166	Salimar	OPC	Chisang Khola	15-Nov-18	22-Nov-18	13-Dec-18	15.37		M20
85	R-7	RUDP-1167	Salimar	OPC	Chisang Khola	16-Nov-18	23-Nov-18	14-Dec-18	16.48		M20
86	R-7	RUDP-1168	Salimar	OPC	Chisang Khola	16-Nov-18	23-Nov-18	14-Dec-18	15.07		M20
87	Koshi Yard	RUDP-1169	Salimar	OPC	Chisang Khola	16-Nov-18	23-Nov-18	14-Dec-18	14.25		M20
88	Madhumara yard	RUDP-1170	Salimar	OPC	Chisang Khola	16-Nov-18	23-Nov-18	14-Dec-18	/17.08		M25
89	R-7	RUDP-1171	Salimar	OPC	Chisang Khola	17-Nov-18	24-Nov-18	15-Dec-18	15.74		M20
90	N-10	RUDP-1172	Salimar	OPC	Chisang Khola	17-Nov-18	24-Nov-18	15-Dec-18	1201		M20
91	R-3	RUDP-1173	Salimar	OPC	Chisang Khola	17-Nov-18	24-Nov-18	15-Dec-18	14.40		M20
92	R-7	RUDP-1174	Salimar	OPC	Chisang Khola	17-Nov-18	24-Nov-18	15-Dec-18	15.07		M20
93	R-3	RUDP-1175	Salimar	OPC	Chisang Khola	17-Nov-18	24-Nov-18	15-Dec-18	16.11		M20
94	DDC-yard	RUDP-1176	Salimar	OPC	Chisang Khola	17-Nov-18	24-Nov-18	15-Dec-18	1684		M20
95	DDC-yard	RUDP-1177	Salimar	OPC	Chisang Khola	18-Nov-18	25-Nov-18	16-Dec-18	15.89		M20
96	R-3	RUDP-1178	Salimar	OPC	Chisang Khola	18-Nov-18	25-Nov-18	16-Dec-18	16.11		M20
97	R-84	RUDP-1179	Salimar	OPC	Chisang Khola	18-Nov-18	25-Nov-18	16-Dec-18	16.78		M20
98	R-7	RUDP-1180	Salimar	OPC	Chisang Khola	18-Nov-18	25-Nov-18	16-Dec-18	14.62		M20
99	R-23	RUDP-1181	Salimar	OPC	Chisang Khola	18-Nov-18	25-Nov-18	16-Dec-18	15.44	-	M20
100	DDC-yard	RUDP-1182	Salimar	OPC	Chisang Khola	19-Nov-18	26-Nov-18	17-Dec-18	16.93		M20
101	R-23	RUDP-1183	Salimar	OPC	Chisang Khola	19-Nov-18	26-Nov-18	17-Dec-18	14.84		M20
102	Madhumara yard	RUDP-1184	Salimar	OPC	Chisang Khola	19-Nov-18	26-Nov-18	17-Dec-18	17.31	-	
103	R-10	RUDP-1185	Salimar	OPC	Chisang Khola	19-Nov-18	26-Nov-18	17-Dec-18	(15.22		M25
104	R-84	RUDP-1186	Salimar	OPC	Chisang Khola	19-Nov-18	26-Nov-18	17-Dec-18	-		M20
105	R-23	RUDP-1187	Salimar	OPC	Chisang Khola	19-Nov-18		17-Dec-18	16.63		M20
106	R-45	RUDP-1188	Salimar	OPC	Chisang Khola	19-Nov-18	26-Nov-18		16.86	-	M20
107	T3124D	RUDP-1189	Salimar	OPC	Chisang Khola		26-Nov-18	17-Dec-18	15.74		M20
108	R-3	RUDP-1190	Salimar	OPC	Chisang Khola	19-Nov-18	26-Nov-18	17-Dec-18	15.07		M20
109	Koshi Yard	RUDP-1191	Salimar	OPC	Chisang Khola	19-Nov-18	26-Nov-18	17-Dec-18	14.99		M20
110	Madhumara yard	RUDP-1192	Salimar	OPC	Chisang Khola		26-Nov-18	17-Dec-18	14.25		M20
111	R-10	RUDP-1193	Salimar	OPC		19-Nov-18	26-Nov-18	17-Dec-18	18.16		M25
112	R-23	RUDP-1193	Salimar	OPC	Chisang Khola	21-Nov-18	28-Nov-18	19-Dec-18	14.71	-	M20
113	T2L24c	RUDP-1194	Salimar	OPC	Chisang Khola	21-Nov-18	28-Nov-18	19-Dec-18	14.77		M20
114	- R-6	RUDP-1196	Salimar	OPC	Chisang Khola	21-Nov-18	28-Nov-18	19-Dec-18	15.14		M20
115	R-10	RUDP-1196	Salimar	OPC	Chisang Khola	21-Nov-18	28-Nov-18	19-Dec-18	12.35		M15
116	N-10		Salimar	OPC	Chisang Khola	22-Nov-18	29-Nov-18	20-Dec-18	15,22		M20
117	N-10 R-7	RUDP-1198	100000	OPC	Chisang Khola	22-Nov-18	29-Nov-18	20-Dec-18	14.84		M20
118	R-103	RUDP-1199	Salimar		Chisang Khola	22-Nov-18	29-Nov-18	20-Dec-18	15.59		M20
119		RUDP-1200	Salimar	OPC	Chisang Khola	22-Nov-18	29-Nov-18	20-Dec-18	15.44		M20
	T2L24C	RUDP-1201	Salimar	OPC	Chisang Khola	22-Nov-18	29-Nov-18	20-Dec-18	16.26		M20
120	R-84	RUDP-1202	Salimar	OPC	Chisang Khola	22-Nov-18	29-Nov-18	20-Dec-18	18.81		M20
121	R-3	RUDP-1203	Salimar	OPC	Chisang Khola	22-Nov-18	29-Nov-18	20-Dec-18	16.04		M20
	C	ontractor						\			

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

Wadhan

Submitted By Contract Manager Qty Engineer/CSE

Verified By

Approved By

Team Leader

		REGIO		Biratn:	N DEVEL agar Metrope ct No:- RUDP/I eet of Concrete	olitan City	y 2		/	/	/
								Month		Nov	ember
								Year		2	018
				1	1		Ty	pe of Material	_	Cone	. Cube
S.N.	Location	Lab Ref.no.	Type of Cement	Brand	Source of Sand+Agg.	Date of Casting	Date of	Testing	Strength	, N/mm2	Concret
			T. A. D. A.	Cement			7 Days	28 Days	7 Days	28 Days	Grade
122	Madhumara yard	RUDP-1204	Salimar	OPC	Chisang Khola	22-Nov-18	29-Nov-18	20-Dec-18	18.08	1	M25
123	R-7	RUDP-1205	Salimar	OPC	Chisang Khola		29-Nov-18	20-Dec-18	15.22		M20
124	R-23	RUDP-1206	Salimar	OPC	Chisang Khola		30-Nov-18	21-Dec-18	14.92	1	M20
125	T3L24C	RUDP-1207	Salimar	OPC	Chisang Khola	23-Nov-18	30-Nov-18	21-Dec-18	15.07	1	M20
126	R-45	RUDP-1208	Salimar	OPC	Chisang Khola	23-Nov-18	30-Nov-18	21-Dec-18	T6.11		M20
127	N-10	RUDP-1209	Salimar	OPC	Chisang Khola	23-Nov-18	30-Nov-18	21-Dec-18	14.77		M20
128	R-10	RUDP-1210	Salimar	OPC	Chisang Khola	23-Nov-18		21-Dec-18	15.22		M20
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8 c	rdhan		Sulfw		Konigari Koni			-	(V	6	
ine	ed By er		Submitt Contract N		Verified By \ Qty Engineer/C	A.				pproved eam Lead	



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

								Month		TOVE	nber
								Year		201	18
							Descri	ption of Sam	ple	Brick	Wall /
			-	Brand		E		Testing	-	h, N/mm2	Type
S.N.	Location	Lab Ref.no.	Type of Cement	of Cement	Source of Sand	Date of Casting	7 Days	28 Days	7 Days	28 Days	of Grade
1	R-7	MR-860	Salimar	OPC	Chisang Khola	4-Oct-18	11-Oct-18	1-Nov-18		(8.54	7.5
2	R-9	MR-861	Salimar	OPC	Chisang Khola	4-Oct-18	11-Oct-18	1-Nov-18		8.00	7.5
3	R-45	MR-862	Salimar	OPC	Chisang Khola	4-Oct-18	11-Oct-18	1-Nov-18		9.47	7.5
4	R-102	MR-863	Salimar	OPC	Chisang Khola	4-Oct-18	11-Oct-18	1-Nov-18		7.87	7.5
5	T3L39B	MR-864	Salimar	OPC	Chisang Khola	4-Oct-18	11-Oct-18	1-Nov-18	1	/8.54	7.5
6	R-9	MR-865	Salimar	OPC	Chisang Khola	5-Oct-18	12-Oct-18	2-Nov-18		/8.67	7.5
7	R-87	MR-866	Salimar	OPC	Chisang Khola	5-Oct-18	12-Oct-18	2-Nov-18		(8.80	7.5
8	R-102	MR-867	Salimar	OPC	Chisang Khola	5-Oct-18	12-Oct-18	2-Nov-18		77.74	7.5
9	R-45	MR-868	Salimar	OPC	Chisang Khola	5-Oct-18	12-Oct-18	2-Nov-18		8.54	7.5
10	R-9	MR-869	Salimar	OPC	Chisang Khola	6-Oct-18	13-Oct-18	3-Nov-18		(8.14	7.5
11	R-84	MR-870	Salimar	OPC	Chisang Khola	6-Oct-18	13-Oct-18	3-Nov-18		9.34	7.5
12	R-12	MR-871	Salimar	OPC	Chisang Khola	6-Oct-18	13-Oct-18	3-Nov-18		9.07	7.5
13	R-45	MR-872	Salimar	OPC	Chisang Khola	7-Oct-18	14-Oct-18	4-Nov-18		(8.54	7.5
14	R-9	MR-873	Salimar	OPC	Chisang Khola	7-Oct-18	14-Oct-18	4-Nov-18		9.99	7.5
15	R-45	MR-874	Salimar	OPC	Chisang Khola	8-Oct-18	15-Oct-18	5-Nov-18		8.79	7.5
16	Rani Site	MR-875	Salimar	OPC	Chisang Khola	8-Oct-18	15-Oct-18	5-Nov-18		8/12	7.5
17	R-45	MR-876	Salimar	OPC	Chisang Khola	9-Oct-18	16-Oct-18	6-Nov-18		8.92	7.5
18	R-102	MR-877	Salimar	OPC	Chisang Khola	9-Oct-18	16-Oct-18	6-Nov-18	/	9.45	7.5
20	T3L111	MR-878	Salimar	OPC	Chisang Khola	9-Oct-18	16-Oct-18	6-Nov-18	1	(8.39	7.5
21	T3L11K	MR-879	Salimar	OPC	Chisang Khola	9-Oct-18	16-Oct-18	6-Nov-18	_	79.32	7.5
22	R-84	MR-880	Salimar	OPC	Chisang Khola	9-Oct-18	16-Oct-18	6-Nov-18		(8.12	7.5
23	T3L111	MR-881	Salimar	OPC	Chisang Khola	10-Oct-18	17-Oct-18	7-Nov-18		(8.12	7.5
24	R-45	MR-882	Salimar	OPC	Chisang Khola	11-Oct-18	18-Oct-18	8-Nov-18		(8.79	7.5
25	T3L11K	MR-883	Salimar	OPC	Chisang Khola	11-Oct-18	18-Oct-18	8-Nov-18		(7.99	7.5
26	R-102	MR-884	Salimar	OPC	Chisang Khola	11-Oct-18	18-Oct-18	8-Nov-18		(8.52	7.5
27	R-7	MR-885	Salimar	OPC	Chisang Khola	11-Oct-18	18-Oct-18	8-Nov-18		(9.19	7.5
28	R-9	MR-886	Salimar	OPC	Chisang Khola	11-Oct-18	18-Oct-18	8-Nov-18		8.65	7.5
29	Rani Site	MR-887	Salimar	OPC	Chisang Khola	12-Oct-18	19-Oct-18	9-Nov-18		(9.05	7.5
30	R-12	MR-888	Salimar	OPC	Chisang Khola	12-Oct-18	19-Oct-18	9-Nov-18		8,52	7.5
31	R-102	MR-889	Salimar	OPC	Chisang Khola	12-Oct-18	19-Oct-18	9-Nov-18		9.19	7.5
32	R-12	MR-890	Salimar	OPC	Chisang Khola	12-Oct-18	19-Oct-18	9-Nov-18		(9.05	7.5
33	R-102	MR-891	Salimar	OPC	Chisang Khola	12-Oct-18	19-Oct-18	9-Nov-18		(8.52	7.5
34	R-7	MR-892	Salimar	OPC	Chisang Khola	25-Oct-18	1-Nov-18	22-Nov-18	6.92	1934	7.5
35	R-12	MR-893	Salimar	OPC	Chisang Khola	25-Oct-18	1-Nov-18	22-Nov-18	638	8.26	7.5
36	R-12	MR-894	Salimar	OPC	Chisang Khola	25-Oct-18	1-Nov-18	22-Nov-18	610	9.35	7.5
37	R-84	MR-895	Salimar	OPC	Chisang Khola	26-Oct-18	2-Nov-18	23-Nov-18	5.97	7.99	7.5
38	R-102	MR-896	Salimar	OPC	Chisang Khola	26-Oct-18	2-Nov-18	23-Nov-18	6.65	8.82	7.5
39	R-63	MR-897	Salimar	OPC	Chisang Khola	26-Oct-18	2-Nov-18	23-Nov-18	-	7.87	7.5
40	R-45	MR-898	Salimar	OPC	Chisang Khola	26-Oct-18	2-Nov-18	23-Nov-18	6.10	8.55	7.5
	R-84	MR-899	Salimar	OPC	Chisang Khola	27-Oct-18	3-Nov-18	24-Nov-18	6.65	8.95	7.5
41	K-84	14117-033									

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

Approved By Team Leader

Checked By Engineer

Wadhen

Submitted By Contract Manager Verified B Qty Engineer/CSE



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

								Month		Nove	mber
								Year		20	18
				_			Descri	ption of Sam	ple	Brick	Wall
77.			Type of	Brand of		Date of	Date of	Testing	Strengtl	h, N/mm2	Type
S,N.	Location	Lab Ref.no.	Cement	Cement	Source of Sand	Casting	7 Days	28 Days	7 Days	28 Days	of Grade
42	R-12	MR-900	Salimar	OPC	Chisang Khola	27-Oct-18	3-Nov-18	24-Nov-18	6.78	8,55	7.5
43	R-103	MR-901	Salimar	OPC	Chisang Khola	27-Oct-18	3-Nov-18	24-Nov-18	5.83	9.50	7.5
44	R-7	MR-902	Salimar	OPC	Chisang Khola	27-Oct-18	3-Nov-18	24-Nov-18	5.83	19.50	7.5
45	R-45	MR-903	Salimar	OPC	Chisang Khola	28-Oct-18	4-Nov-18	25-Nov-18	6.78	8.28	7.5
46	R-23	MR-904	Salimar	OPC	Chisang Khola	28-Oct-18	4-Nov-18	25-Nov-18	(6.24	18.68	7.5
47	T3L24D	MR-905	Salimar	OPC	Chisang Khola	29-Oct-18	5-Nov-18	26-Nov-18	6,65	(8.28	7.5
48	R-10	MR-906	Salimar	OPC	Chisang Khola	30-Oct-18	6-Nov-18	27-Nov-18	6.78	8.95	7.5
49	R-84	MR-907	Salimar	OPC	Chisang Khola	31-Oct-18	7-Nov-18	28-Nov-18	6.65	19.23	7.5
50	R-12	MR-908	Salimar	OPC	Chisang Khola	31-Oct-18	7-Nov-18	28-Nov-18	(3.56	8.14	7.5
51	R-7	MR-909	Salimar	OPC	Chisang Khola	1-Nov-18	8-Nov-18	29-Nov-18	6.38	79.63	7.5
52	R-103	MR-910	Salimar	OPC	Chisang Khola	1-Nov-18	8-Nov-18	29-Nov-18	5.56	(8.14	7.5
53	R-103	MR-911	Salimar	OPC	Chisang Khola	I-Nov-18	8-Nov-18	29-Nov-18	16.51	9.36	7.5
54	R-84	MR-912	Salimar	OPC	Chisang Khola	2-Nov-18	9-Nov-18	30-Nov-18	5.97	8.55	7.5
55	R-63	MR-913	Salimar	OPC	Chisang Khola	3-Nov-18	10-Nov-18	1-Dec-18	6.78		7.5
56	R-63	MR-914	Salimar	OPC	Chisang Khola	3-Nov-18	10-Nov-18	1-Dec-18	15.97		7.5
57	R-7	MR-915	Salimar	OPC	Chisang Khola	3-Nov-18	10-Nov-18	1-Dec-18	6.78		7.5
58	R-7	MR-916	Salimar	OPC	Chisang Khola	3-Nov-18	10-Nov-18	1-Dec-18	(5.97		7.5
59	R-10	MR-917	Salimar	OPC	Chisang Khola	3-Nov-18	10-Nov-18	1-Dec-18	6.78		7.5
60	N-10	MR-918	Salimar	OPC	Chisang Khola	3-Nov-18	10-Nov-18	1-Dec-18	6.24		7,5
61	R-12	MR-919	Salimar	OPC	Chisang Khola	3-Nov-18	10-Nov-18	1-Dec-18	3.83		7.5
62	R-7	MR-920	Salimar	OPC	Chisang Khola	4-Nov-18	11-Nov-18	2-Dec-18	5.97		7.5
63	R-45	MR-921	Salimar	OPC	Chisang Khola	4-Nov-18	11-Nov-18	2-Dec-18	6.24		7.5
64	R-103	MR-922	Salimar	OPC	Chisang Khola	4-Nov-18	11-Nov-18	2-Dec-18	6.10		7.5
65	N-10	MR-923	Salimar	OPC	Chisang Khola	4-Nov-18	11-Nov-18	2-Dec-18	5.83		7.5
66	R-7	MR-924	Salimar	OPC	Chisang Khola	15-Nov-18	22-Nov-18	13-Dec-18	5.70		7.5
67	R-7	MR-925	Salimar	OPC	Chisang Khola	17-Nov-18	24-Nov-18	15-Dec-18	6.65		7.5
27	R-7	MR-926	Salimar	OPC	Chisang Khola	18-Nov-18	25-Nov-18	16-Dec-18	6.51		7.5
69	N-10	MR-927	Salimar	OPC	Chisang Khola	18-Nov-18	25-Nov-18	16-Dec-18	5.83		7.5
70	R-84	MR-928	Salimar	OPC	Chisang Khola	18-Nov-18	25-Nov-18	16-Dec-18	6.38		
71	R-63	MR-929	Salimar	OPC	Chisang Khola	19-Nov-18	26-Nov-18	17-Dec-18	6.24		7.5
72	T2L24D	MR-930	Salimar	OPC	Chisang Khola	19-Nov-18	26-Nov-18	17-Dec-18	5.97		7.5
73	R-23	MR-931	Salimar	OPC	Chisang Khola	19-Nov-18	26-Nov-18	17-Dec-18	5.70		7.5
7.4	R-12	MR-932	Salimar	OPC	Chisang Khola	19-Nov-18	26-Nov-18	17-Dec-18	6.51		
75	R-7	MR-933	Salimar	OPC	Chisang Khola	20-Nov-18	27-Nov-18	18-Dec-18	5.97		7.5
76	R-23	MR-934	Salimar	OPC	Chisang Khola	20-Nov-18	27-Nov-18	18-Dec-18	6.65		
77	R-10	MR-935	Salimar	OPC	Chisang Khola	20-Nov-18	27-Nov-18	18-Dec-18	(5.83		7.5
78	N-10	MR-936	Salimar	OPC	Chisang Khola	20-Nov-18	27-Nov-18	18-Dec-18		-	7.5
79	R-84	MR-937	Salimar	OPC	Chisang Khola	20-Nov-18	27-Nov-18	18-Dec-18	6.65		7.5
80	R-63	MR-938	Salimar	OPC	Chisang Khola	20-Nov-18	27-Nov-18	18-Dec-18	-		7.5
81	R-103	MR-939	Salimar	OPC	Chisang Khola	20-Nov-18	27-Nov-18	18-Dec-18	6.51		7.5
82	R-10	MR-940	Salimar	OPC	Chisang Khola	21-Nov-18	28-Nov-18	19-Dec-18	6.38		7.5 7.5

ZHONGHENG CONSTRUCTION GROUP

Consultant

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

Wadhan Checked By

Engineer

Contract Manager

Contractor

INTERNATIONAL ENGINEERING CO. LTD

Submitted By

Qty Engineer/CSE

Approved By Team Leader





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								Month		Nover	nber
								Year		201	18
							Descri	ption of Sam	ple	Brick	Wall
		770000	Type of	Brand		B	Date of	Testing	Strengt	h, N/mm2	Тур
S.N.	Location	Lab Ref.no.	Cement	of Cement	Source of Sand	Date of Casting	7 Days	28 Days	7 Days	28 Days	of Grad
83	R-84	MR-941	Salimar	OPC	Chisang Khola	21-Nov-18	28-Nov-18	19-Dec-18	6.10		7.5
84	R-63	MR-942	Salimar	OPC	Chisang Khola	21-Nov-18	28-Nov-18	19-Dec-18	6.78		7.5
85	R-45	MR-943	Salimar	OPC	Chisang Khola	21-Nov-18	28-Nov-18	19-Dec-18	(5.97		7.5
86	T2L24C	MR-944	Salimar	OPC	Chisang Khola	21-Nov-18	28-Nov-18	19-Dec-18	6.65		7.5
87	N-10	MR-945	Salimar	OPC	Chisang Khola	21-Nov-18	28-Nov-18	19-Dec-18	6.10		7.5
88	R-7	MR-946	Salimar	OPC	Chisang Khola	23-Nov-18	30-Nov-18	21-Dec-18	15.83		7.5
89	R-23	MR-947	Salimar	OPC	Chisang Khola	23-Nov-18	30-Nov-18	21-Dec-18	6.10		7.5
90	T2L24C	MR-948	Salimar	OPC	Chisang Khola	23-Nov-18	30-Nov-18	21-Dec-18	6.65		7.5
91	R-23	MR-949	Salimar	OPC	Chisang Khola	23-Nov-18	30-Nov-18	21-Dec-18	5.83		7.5
92	N-10	MR-950	Salimar	OPC	Chisang Khola	23-Nov-18	30-Nov-18	21-Dec-18	6.78		7.5
93	R-84	MR-951	Salimar	OPC	Chisang Khola	23-Nov-18	30-Nov-18	21-Dec-18	15.56		7,5
94	R-63	MR-952	Salimar	OPC	Chisang Khola	23-Nov-18	30-Nov-18	21-Dec-18	1570		7.5
95	R-7	MR-953	Salimar	OPC	Chisang Khola	23-Nov-18	30-Nov-18	21-Dec-18	6.65		7.5
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60 heck	ed By	By	Verified By Approved By								



		RF	GIONAL	URBA! Biratna	gar N	Tetro	polit	tan (City	TP	RO	JE(CT				
				Summary	Sheet	of Mon								Mor Ye Typ Mate	ar e of		vember 2018 ib-base
Sa.	Lab.Ref no.	Location of Sample	Source of Sample	Date of Testing	6.3	Sieve 40	Size in	mm / p:	assing 9	6 By W	eight	0.075	MDD	OMC	PI%	CBR %	Remarks
0.0	8:UDP-\$8-51	R-2, (0+100)	Chisang Khoka	11-Nov-18	T00.86	102.66	fi4.78	62.84	AT 95	67.49	A7.55	6.48			2.55		
2	EUOP-88-00	R-2, (0+200)	Chisang Khoka	11-Nov-18	100.80	1	V17.00			4	18.44	4.4	/2.192	/5.40	/3.05	V45.80	-
3	8.009-58-05	R-2. (0)-300)	Chisang Khota	11-Nov-18	100.00	-		57.08	40	2.5	14	/8.64	1	7-10	1	10,000	1
4-1	B009-38-04	R-2, (0+400)	Chisang Khola	11-Nov-18	100.00	87.81		51.88		27.89		8.07	2.219	5.30-	2.03	48.00	1
5	ECD9-538-55	R-2, (0=500)	Chisang Khola	12-Nov-18	100.00	90.41	4	58 37	39.53		18.96	8.81	2.231	5.60	287	41.00	-
4	BCID9-53-96	3-2, (0+600)	Chisang Khola	12-Nov-18	100.00	\$7.50	66.15	/	40.11	_	17.04	8.09	2.223	5.90		39.10	
3 I	RSDP-82-16	B-2. (0+700)	Chisang Khoka	12-Nov-18	100.00	88.55	-				20.51	9:00			3.13	37.10	
2	E-09-53-38	R-2, (0+800)	Chisang Khoka	12-Nov-18	300.0G	86.84	66.52	52.55	41.18	30.68	19.64	9.42			E31	-	
														9			
				Spec. Limit :	100	70~100	50-85	40~75	30~60	20-45	15~37	4~15			<6	>30	
		Cont	ractor									nsulta	4		-		
ZHO	NGHENG CONST	RUCTION GRO	HRINTERNATIO	NAL ENGINEE	RING					LTD A	ORITY ND PL	(P) LTI US ENC	nt D IN JOI GINEER NEPAL	S & AR			
6 V 2	idhan	P INTERNATIONALES	NORD NOTITIES	R			***************************************	1/0	no l	/				(B	83	,
Checke Engine				Submitted By Contract Manage	er		Verifie	d By gineer/0	SE							ved By Leader	



					of Field Dens		Month	November	
			Long	ation:-	D 2	-	Year	2018	-/
			Loca		e content %	Density	pe of Material	Sub-Base Compaction	/
Sn.	Lab.Ref.no	Testing Date	Chainage		77 83 7 77 7	Max.Dry	Field Dry	Compaction	Speci
	Liabitelino	resting Dute	Chamago	OMC%	Field MC%	density	density,	%	ed
1	RUDP-SB-FD-1, R/S	21-Nov-18	0+040	5.40	5.01	2.192	2.141	97.68	95
2	RUDP-SB-FD-1, C/L	21-Nov-18	0+080	5.40	4.94	2.192	2.110	96.25	95
3	RUDP-SB-FD-1, L/S	21-Nov-18	0+120	5.40	5.19	2.192	2.136	97.45	95
4	RUDP-SB-FD-1, L/S	21-Nov-18	0+150	5.40	4.44 /	2.192	2.100	95.78	95
5	RUDP-SB-FD-1, L/S	21-Nov-18	0+180	5.40	5.21	2.192	2.142	97.71	95
6	RUDP-SB-FD-1, C/L	21-Nov-18	0+200	5.40	4.34	2.192	2.090.	95.34	95
7	RUDP-SB-FD-1, L/S	21-Nov-18	0+220	5.40	5.32	2.192	2.115	96.50	95
8	RUDP-SB-FD-1, C/L	21-Nov-18	0+250	5.40	5.22	2.192	2.104	95.99	95
9	RUDP-SB-FD-1, R/S	21-Nov-18	0+280	5.40	4.94	2.192	2.151	98.14	95
10	RUDP-SB-FD-2, L/S	21-Nov-18	0+300	5.40	5.14	2.192	2.151	98.14	95
11.	RUDP-SB-FD-2, R/S	21-Nov-18	0+340	5.40	5.92	2.192	2.189	99.87	95
12	RUDP-SB-FD-2, C/L	21-Nov-18	0+360	5.40	4.82	2.192	2.168	98.93	95
13	RUDP-SB-FD-2, L/S	21-Nov-18	0+390	5.40	5.30	2.192	2.145	97.85	95
14	RUDP-SB-FD-2, R/S	21-Nov-18	0+410	5.30	4.91	2.219	2.121	95.57	95
15	RUDP-SB-FD-2 R/S	21-Nov-18	0+440	5.30	4.91	2.219	2.118	95.44	95
16	RUDP-SB-FD-2, L/S	21-Nov-18	0+460	5.30	5.07	2.219	2.157	97.22	95
17	RUDP-SB-FD-2, L/S	21-Nov-18	0+480	5.30	4.99	2.219	2.137	96.31	95
18	RUDP-SB-FD-2, L/S	21-Nov-18	0+500	5.60	5.06	2.231	2.141	95.96	95
19	RUDP-SB-FD-2, R/S	21-Nov-18	0+550	5.60	4.24	2.231	2.176	97.53	95
20	RUDP-SB-FD-3, R/S	21-Nov-18	0+570	5.60	5.03	2.231	2.158	96.73	95
21	RUDP-SB-FD-3, C/L	21-Nov-18	0+590	5.60	4.79	2.231	2.163	96.94	95
22	RUDP-SB-FD-3, L/S	21-Nov-18	0+650	5.90	5.35	2.223	2.148	96.61	95
23	RUDP-SB-FD-3, L/S	21-Nov-18	0+700	5.90	4.97	2.223	2.181	98.10	95
24	RUDP-SB-FD-3, R/S	21-Nov-18	0+720	5.90	5.38	2.223	2.199	98.94	95
25	RUDP-SB-FD-3, C/L	21-Nov-18	0+760	5.90	5.42	2.223	2.131	95.85	95
26	RUDP-SB-FD-3, R/S	21-Nov-18	0+800	5.90	5.90	2.223	2.195	98.76	95
27	RUDP-SB-FD-3, R/S	21-Nov-18	0+810	5.90	4.80	2.223	2.148	96.61	95
			0.010	0.50	11.00	2,225	2.170	20.01	73
								-	
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e de la constante de la consta	Stratility Dally and	ntractor	France S		BUILDING	DESIGN ATT	Consultant	LTD IN JOINT VE	ATTUD
ZH	ONGHENG CONSTRUCT			TIONAL				AND PLUS ENGIN	
	CO. LTD.	RING CO. LTD						IMANDU, NEPAL	LLILO
	118/1	(3)						(00	



			REGIO	Bira Contra	tnagar Metro act No:- RUD	ELOPMENT PRO populitan City P/ICB/BRT-02 nthly Test Report	JECT				
							Month	November			
							Year	2018			
s.N.	Lab Ref.No.	Testing Date	Location of Sample	Source of Brick	Name Of Brick	Water Absorption of Brick(%)	Type of Material Strength of Brick(N/mm²)	Remarks			
1	214	3-Nov-18	R-9	Dadarbairya	ACC	/ 12.74	(12.00	1			
2	215	3-Nov-18	R-12	Dadarbairya	ACC	13.07	13.86				
3	216	4-Nov-18	R-12	Dadarbairya	ACC	(14.98	/ 13.57				
4	217	4-Nov-18	R-12	Dadarbairya	ACC	_12.70	/ 12.72				
5	218	5-Nov-18	R-103	Dadarbairya	ACC	14.11	12.68				
6	219	5-Nov-18	R-45	Dadarbairya	ACC	12.99	13.45				
7	220	6-Nov-18	/R-45	Dadarbairya	ACC	/ 13.28					
8	221	12-Nov-18	R-10	Dadarbairya	ACC	~11.85	12.81				
9	222	12-Nov-18	R-84	Dadarbairya	ACC	12.49	13.23	-			
10	223	12-Nov-18	N-10	Dangraha	STL	14.65	13.59				
11	224	12-Nov-18	R-7	Dangraha	STL	12.92	13.81				
12	225	13-Nov-18	/R-7	Dangraha	STL		14.08				
13	226	13-Nov-18	R-7	Dangraha	STL	15.09	14.57				
14	227	13-Nov-18	R-10	Dangraha	STL	<13.72	13.68				
5	228	13-Nov-18	N-10	Dangraha	STL	14.10	13.96				
6	229	13-Nov-18	N-10	Dadarbairya	ACC	11.43	/ 14.01				
7	230	15-Nov-18	/ R-102	Dadarbairya	ACC	12.64	/ 14.01				
8	231	16-Nov-18	R-103	Dangraha	STL	12.90	13.87				
9	232	16-Nov-18	R-15	Dangraha	STL	14.02	13.03				
0	233	17-Nov-18	R-63	Dangraha	STL	/12.50	13.08				
1	/234	18-Nov-18	/ R-7	Dangraha		(12.66	13.46				
2	235	19-Nov-18	R-23	-	STL	(13.67	~14.95				
3	236	20-Nov-18	T3L24D	Dadarbairya	ACC	12.68	(14.62 A				
1	237	20-Nov-18	T3L24D	Dadarbairya	ACC	13.35	/12.76				
5	238	20-Nov-18	R-45	Dangraha	STL	14.01	(14.02				
5	239	/21-Nov-18		Dangraha	STL	11.98	C13.28				
,	239		R-84	Dadarbairya	ACC	(13.35	(12.53				
-		21-Nov-18	N-10	Dangraha	STL	12.76	13.66				
3	241	21-Nov-18	/ R-102	Dangraha	STL	(14.31	13.25				
-	242	21-Nov-18	R-10	/ Dangraha	STL	12.97	r 14.86				
	243	22-Nov-18	R-7	Dangraha	STL	12.42	(13.21				
		e No.2502,5ta	andard Specficatio	n Road And Brid	lge 2073	/<20%	≶8 to 10 N/mm² /				
m	ments:-	CONTINUE CROUP	atractor			Consulta	nt.				
ON	IGHENG CO	NSTRUCTION G	O. LTD 003	AL ENGINEERING							
S ck	AN By		Submittee	I By	Verified By	Y	Approved By				



			REGIO	Contr	atnagar Metr ract No:- RUI	ELOPMENT PROC opolitan City DP/ICB/BRT-02 inthly Test Report	JECT	
							Month	Novembe
_		,					Year Type of Material	2018
.N.	Lab Ref.No.	Testing Date	Location of Sample	Source of Brick	Name Of Brick	Water Absorption of Brick(%)		Remark
31	244	22-Nov-18	CR-63	/Dangraha	STL	12.91	/15.12	
32	245	22-Nov-18	T2L24C	Dangraha	STL	12.60	14.54	
33	246	23-Nov-18	R-102	Dangraha	STL	A1.57	/ 12.98	
34	247	23-Nov-18	R-23	/Dangraha	STL	(12.30	(14.19	_
35	248	23-Nov-18	/ T2L24C	Dangraha	STL	/13.59	(15.34	_
36	249	25-Nov-18	R-84	, Dangraha	STL	/14.47	13.70	
37	250	25-Nov-18	R-10	Dangraha	STL	/13.60		
						7 25.00	14.20	
+								
-	Sub-Clau	se No.2502.Sta	ndard Specficati	on Road And Brid	go 2072			/
mme	ents:-		ractor		50.2073	<20%	≥8 to 10 N/mm²	
ном	IGHENG CO	NSTRUCTION GROUP	MTERMATIONA DUP INTERNATIONA ETD	AL ENGINEERING B	UILDING DESIGN A	Consulta UTHORITY (P) LTD IN JOINT VENTUR ENGINEERS & ARCHITECTS (P) LT	E WITH B.N. CONSULTANCY PVT	LTD AND PL
(Kha		mroon h	,	None	R/	(8, 2)	7



REGIONAL URBAN DEVELOPMENT PROJECT Biratnagar Metropolitan City Contract No:- RUDP/ICB/BRT-02 SUMMARY SHEET OF CEMENT TEST Month November Year 2018 Consistancy & Setting Time Lab Type of Soundness Fineness Date of Testing Strength N/mm² Date of **Tetsing Date** Ref.no. cement (mm) (%) Normal Cons.(%) Initial(Min) | Final (min) Casting 7 Days 28 Days 7 days 28 Days Remarks 25 Salimar OPC 4-Oct-18 11-Oct-18 /1-Nov-18 A7.12 2 Salimar OPC 26 ∠9-Oct-18 16-Oct-18 6-Nov-18 48.36 27 Salimar OPC 1/3-Nov-18 31.5C 406.00 /230.00 /2.38 1.66 4-Nov-18 11-Nov-18 2-Dec-18 35.27 4 Salimar OPC 11-Nov-18 29.75 100.00 214.00 2.58 2.47 12-Nov-18 19-Nov-18 10-Dec-18 38.85 Sp.Limit: Min-30 Max-600 **/ <10 <10** />33 //>43 Comments:-Contractor Consultant BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH B.N. ZHONGHENG CONSTRUCTION GROUP INTERNATIONAL CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, ENGINEERING CO. LTD KATHMANDU, NEPAL Approved By Engineer Contract Manager QTY Engineer/CSE Team Leader



		RE	GIONAL	URBA Biratna Contract	gar N	Aetro	poli	tan (City		PRO)JE(CT			C77 0	
				Summary	Sheet	of Mon	thly T	est Re	port					Mo	nth:	No	vember
														Ye	ar		2018
				Location:-R-	3									Typ Mat		Sı	ib-base
		Location of			I	Sieve	Size in	mm / r	nassino	% By W	/eight			Mat	l l		
Sn. I	Lah Ref no.	Sample	Source of Sample	Date of Testing	- 63	40	20	10	4.75	2.36	1.18	0.075	MDD	OMC	PP%	CBR %	Remark
1 1	RUIDP-SB-01	R-3.(0+100)/	Chisane Khola	1-Nov-18	100.00	93.35/	25.12	61.17	49.71	38.03.	21.24	6.90			7.00		
2 !	RUDP-SB-02	L R-3,(0+150)	Chisane Khola	1-Nov-18	100.00	90.92	1 2	159.37	48.72	1 7	19.29	1 /	2.25	5.00	2.90		
3 I	RUDP-SB-03	I R-3.(0+250).	Chisane Khola	1-Nov-18	100.00		-	-		,	-	6.23/	2.225	5.20	3.45	48,90	
4	RUDP-SB-94	I R-3.(0≑400)	Chisang Khola	1-Nov-18	100.00	98.78 98.66	77.67	66.70		+ /	21.62	7.79			2.19		
5 1	EUDP-SB-05	L R-3,(0+500)	Chisang Khoia	3-Nov-18	100.00	-	/	/	1	1 /	20.23	10.50	2.223	5.60	2.62	45.20	L-
6	BUDP-SB-66	R-3.(0+600)	Chisang Khola	2-Nov-18		85.85	63.65	58.54	2		18,17	7.56			1,5%	. 0	
7	BUDP-SB-07	1 R-3.(0+700)	Chisang Khola	2-Nov-18	[166.00	87.87	69.66				17.93	9.83	2.258	630		44.00	
8 1	RUDP-SB-98	R-3.(01800)	Chisang Khola		100.00	38.50	71.54			35.90		11.61			2.12		
9	RURP-SB-09	R-3.(0+900)	Chisang Khola		100.00	85.26	61.42	52.]]		- 1	17.11	9.57	2206	5.85	-	38.60	
10	B-UDP-SB-10	I R-3.(1+000)	Chosane Khola		100.00	92.93	75.31			35.51	16.28	7.09			2.09 3		
11.1	RUDP-SB-11	R-3.(1±050)	Chiseus Khela	3-Nov-18	1100.00	91.52		48.65	2	1	16.55	7.59 8.53	2.222	5.60		41.20	
12	RUDP-SB-12	I R-3./1+1501	Chisana Khala	3-Nov-18	100.00	88.21				34.03 26.03					2.83	-	
13	REUDP-SB-13	R-3.(1+250)	Chisang Khola	3-Nov-18	100.00	85.56			33.78	27.07	17.5	1 3	0.00		3.83	- 1	
54	REEDP-SB-14	R-3.(1+350)	Chisang Khola	3-Nov-18	100.00	30.16			£ 41.13,	25.56	.16.69 .17.50	2 3	2.224	5.20	2:72	42.001	
15.1	RUDP-SB-15	i R-3.(1+500)	Chisang Khola	4-Nov-18	100.09	87.14				32.53	18.46	9.06	2.23%	5.50 1	2.38		-
1								-	7		10.40	7.00	1000	3.36	2.28	52.40	
				Spec. Limit :	100	70~100	59~85	40~75	30-60	20~45	15-37	4-15			<6	>30	
															-	A	
		Contr	actor					1-11-			Co	nsultar	ıt				
ZHON	GHENG CONST	RECTION GROI	PINTERNATION	AI FREINEEL	DINC:	В	UILDE	NG DE	SIGN	AUTHO			INJOE	NEVEN	THE REAL PROPERTY.	WES	BN
		CO.I	JD.	AL ENGINEER	dive	CO	NSUL.1	ANCY	PVT.	LTD A	ND PL	US ENG	INEERS NEPAL	S& AR	CHITE	CTS (P) LTD,
Yaa	lhan		S	a swift.			NG.	in Col	/			= -			62	,4	
hecked nginee			C	Submitted By ontract Manager			Verified Qty Eng	- 21	SE						Approv		



		R	EGIONA	Biratna Contrac	igar I t No:-	Aetro RUD	poli P/ICI	tan (B/BR	City T-02	TF	RC	JE	СТ				
				Summary	Sheet	of Mont	thly To	est Rep	ort					Mor	th-	I No	vember
														Ye			2018
				Locatio	on:-R	-3								Typ- Mate		St	ib-base
		Location of				Sieve	Sizein	nom / po	essine "	6 By W	cient				1 100		
I m2	Lab.ReFno.	Sample	Source of Sample	Date of Testing	53	40	20	10	4.75	2.36	T.18	0.075	MDD	омс	PJ94.	CBR%	Remark
16.	RLDP-SB-16	R-3.(1+600)	Chisang Khola	4-Nov-18	100.00	90.28	74.73	57.17	42.55	27.88	17.69	9.57			7775		
17	\$1,422-5E-13	R-3.(1±700)	Chisang Knobs	4-Nos-18	1 200.00	85.44	68.11	53.47		32.50	1	10.35	2.22.78	5.89	2.11		
18 !	PERP-59-18	R-3.(1+850)	Chisang Khola	5-Nov-18	[100.00	84.76	\$2.63	49.40		25.34	-	8.52		3:00	2.47	55 00 1	1
19 1	######################################	R-331+9000	Chisang Khota	5-Nov-18	1 200.00	89.88	_	56.76		36.02		14.47	2.25 01	5.75	_		
30	##(IDP-SB-30	R-3,(2+000)	Chisang Khola	5-Nov-18	100,00	88.42	66.85	51.44			Z1 23	7.56	12.0	3.12	201	49.00]	
21 1	BEEEE-28-51	R-3/2+1001	Chisang Khola	5-Nov-18	1 100 80	85.50				26.60		.6.52	2276	5.20		47 40	
22 1	N.DP-58-77	2-3.(2-200)	Chisang Khola	5-Nov-18	100.03	87.03/	65.83			26.65		6.54		220	2.07	2740	
1		1										1					
1																	
				Spec. Limit:	100	70~100	50~85	40-75	30-60	20~45	15-37	4~15	- 1		<6	>30 T	
							/					-			/	-	
		Conti	ractor								Co	nsultar	nf	-			
ZBOS	NGHENG CONST		EP INTERNATIO	NAL ENGINEE	RING	CON	NSULT	G DES	SIGN A	LTD A	RITY ND PL	(P) ŁTI US ENC	DIVJOI JINEER NEPAL	NT VE	NTER CHIT	EWITE ECTS (I	I B.N. ') LTD,
Vad hecked		30	e da de	Submitted By ontract Manager			Verified Qty Eng	By inner/C	ZE	2						ved By	



		Biratn	agar M	EVELO etropolit EUDP/ICE	an City	NT PRO	JECT	
				of Field Den				
						Month	Novembe	r
	Loc	ation - R.	3		-	Year	2018	/
		1	Moistur	e content %	Dens	Type of Material		
Lab.Ref.no	Testing Date	Chainag						Speci
IDP-SR-ED 1 D/S	6 N 10	0.000			density	density,	%	ed
							96.16	95
			_		2.225	(2.145	96.41	95
			1			2.121	95.31	95
					(2.225		(97.30	95
		_			2.225	2.149	/96.60	95
					(2.225	2.173	797.67	95
				6.00	1 2.225	/ 2.135	/ 95.97	95
			(5.20	(5.48	/ 2.225	(2.134		95
		0+350	5.20	5.26	2.225			95
	6-Nov-18	0+400	5.60	5.01				95
	6-Nov-18	0+440	5.60	5.17				95
	6-Nov-18	0+480	5.60	5.19				_
	6-Nov-18	0+500	15.60					95
DP-SB-FD-1, L/S	6-Nov-18	0+550		-				95
DP-SB-FD-1, C/L	6-Nov-18							95
DP-SB-FD-1, L/S	6-Nov-18	-						95
DP-SB-FD-1, C/L								95
								95
DP-SB-FD-1, R/S								95
				1256			98.55	95
							97.97	95
							95.76	95
						2.139	96.96	95
					2.206	2.119	96.06	95
				200	2.206	2.096	95.01	95
				5.14	2.222	2.156	97.01	95
				5.29	2.222	2.196	98.81	95
			5.60	4.45	2.222	2.154		95
		1+200	5.60	5.14	2.222	2.151		95
DP-SB-FD-1, R/S	7-Nov-18	1+250	5.20	5.92	2.224	2.184		95
OP-SB-FD-1, C/L	7-Nov-18	1+200	5.20	4.82	2.224	2.168	97.50	95
	JDP-SB-FD-1, R/S JDP-SB-FD-1, C/L JDP-SB-FD-1, L/S JDP-SB-FD-1, C/L JDP-SB-FD-1, C/L JDP-SB-FD-1, L/S JDP-SB-FD-1, L/S JDP-SB-FD-1, C/L JDP-SB-FD-1, L/S JDP-SB-FD-1, L/S JDP-SB-FD-1, C/L	Lab.Ref.no JDP-SB-FD-1, R/S 6-Nov-18 JDP-SB-FD-1, L/S 6-Nov-18 JDP-SB-FD-1, L/S 6-Nov-18 JDP-SB-FD-1, R/S 6-Nov-18 JDP-SB-FD-1, R/S 6-Nov-18 JDP-SB-FD-1, L/S 7-Nov-18 JDP-SB-FD-1, R/S 7-Nov-18 JDP-SB-FD-1, R/S 7-Nov-18 JDP-SB-FD-1, L/S 7-Nov-18 JDP-SB-FD-1, R/S 7-Nov-18	Lab.Ref.no Testing Date Chainag JDP-SB-FD-1, R/S 6-Nov-18 0+060 JDP-SB-FD-1, C/L 6-Nov-18 0+100 JDP-SB-FD-1, L/S 6-Nov-18 0+140 JDP-SB-FD-1, R/S 6-Nov-18 0+180 JDP-SB-FD-1, R/S 6-Nov-18 0+210 JDP-SB-FD-1, L/S 6-Nov-18 0+250 JDP-SB-FD-1, L/S 6-Nov-18 0+320 JDP-SB-FD-1, L/S 6-Nov-18 0+320 JDP-SB-FD-1, L/S 6-Nov-18 0+350 JDP-SB-FD-1, L/S 6-Nov-18 0+440 JDP-SB-FD-1, L/S 6-Nov-18 0+440 JDP-SB-FD-1, L/S 6-Nov-18 0+480 JDP-SB-FD-1, L/S 6-Nov-18 0+550 JDP-SB-FD-1, L/S 6-Nov-18 0+550 JDP-SB-FD-1, L/S 6-Nov-18 0+600 JDP-SB-FD-1, L/S 6-Nov-18 0+600 JDP-SB-FD-1, L/S 6-Nov-18 0+690 DP-SB-FD-1, R/S 7-Nov-18 0+750 DP-SB-FD-1, R/S 7-Nov-18 0+820 DP-SB-FD-1, R/S 7-Nov-18 0+820 DP-SB-FD-1, L/S 7-Nov-18 0+820 DP-SB-FD-1, L/S 7-Nov-18 1+050 DP-SB-FD-1, L/S 7-Nov-18 1+050 DP-SB-FD-1, L/S 7-Nov-18 1+150 DP-SB-FD-1, R/S 7-Nov-18 1+150 DP-SB-FD-1, R/S 7-Nov-18 1+250 Lab.Ref.no Testing Date Chainage OMC% JDP-SB-FD-1, R/S 6-Nov-18 0+060 5.20 JDP-SB-FD-1, C/L 6-Nov-18 0+100 5.20 JDP-SB-FD-1, L/S 6-Nov-18 0+140 5.20 JDP-SB-FD-1, R/S 6-Nov-18 0+140 5.20 JDP-SB-FD-1, R/S 6-Nov-18 0+210 €.20 JDP-SB-FD-1, C/L 6-Nov-18 0+250 /5.20 JDP-SB-FD-1, R/S 6-Nov-18 0+290 /5.20 JDP-SB-FD-1, L/S 6-Nov-18 0+290 /5.20 JDP-SB-FD-1, L/S 6-Nov-18 0+290 /5.20 JDP-SB-FD-1, L/S 6-Nov-18 0+320 /5.20 JDP-SB-FD-1, L/S 6-Nov-18 0+320 /5.20 JDP-SB-FD-1, L/S 6-Nov-18 0+400 5.60 JDP-SB-FD-1, L/S 6-Nov-18 0+400 5.60 JDP-SB-FD-1, L/S 6-Nov-18 0+440 5.60 JDP-SB-FD-1, L/S 6-Nov-18 0+450 6.30 DP-SB-FD-1, C/L <t< th=""><th> Lab.Ref.no Testing Date Chainage Cha</th><th>Lab.Ref.no Testing Date Chainage Moisture content % density Dens Max.Dry density JDP-SB-FD-1, R/S 6-Nov-18 0+060 5.20 5.48 2.225 JDP-SB-FD-1, C/L 6-Nov-18 0+100 5.20 5.39 2.225 JDP-SB-FD-1, L/S 6-Nov-18 0+100 5.20 5.39 2.225 JDP-SB-FD-1, R/S 6-Nov-18 0+140 5.20 4.82 2.225 JDP-SB-FD-1, R/S 6-Nov-18 0+210 75.20 75.43 (2.225 JDP-SB-FD-1, R/S 6-Nov-18 0+210 75.20 75.35 (2.225 JDP-SB-FD-1, R/S 6-Nov-18 0+250 75.20 75.24 72.225 JDP-SB-FD-1, L/S 6-Nov-18 0+290 75.20 75.44 72.225 JDP-SB-FD-1, L/S 6-Nov-18 0+290 75.20 75.44 72.225 JDP-SB-FD-1, L/S 6-Nov-18 0+350 5.20 5.26 2.225 JDP-SB-FD-1, L/S 6-Nov-18 0+400 5.60 5.11 2.223<</th><th> Lab.Ref.no Testing Date Chainage OMC% Field MC% Max.Dry density Gensity Gensity Chainage OMC% Field MC% Max.Dry density Gensity /th><th> Lab.Ref.no</th></t<>	Lab.Ref.no Testing Date Chainage Cha	Lab.Ref.no Testing Date Chainage Moisture content % density Dens Max.Dry density JDP-SB-FD-1, R/S 6-Nov-18 0+060 5.20 5.48 2.225 JDP-SB-FD-1, C/L 6-Nov-18 0+100 5.20 5.39 2.225 JDP-SB-FD-1, L/S 6-Nov-18 0+100 5.20 5.39 2.225 JDP-SB-FD-1, R/S 6-Nov-18 0+140 5.20 4.82 2.225 JDP-SB-FD-1, R/S 6-Nov-18 0+210 75.20 75.43 (2.225 JDP-SB-FD-1, R/S 6-Nov-18 0+210 75.20 75.35 (2.225 JDP-SB-FD-1, R/S 6-Nov-18 0+250 75.20 75.24 72.225 JDP-SB-FD-1, L/S 6-Nov-18 0+290 75.20 75.44 72.225 JDP-SB-FD-1, L/S 6-Nov-18 0+290 75.20 75.44 72.225 JDP-SB-FD-1, L/S 6-Nov-18 0+350 5.20 5.26 2.225 JDP-SB-FD-1, L/S 6-Nov-18 0+400 5.60 5.11 2.223<	Lab.Ref.no Testing Date Chainage OMC% Field MC% Max.Dry density Gensity Gensity Chainage OMC% Field MC% Max.Dry density Gensity Gensity	Lab.Ref.no	



	REGIO]	Biratna	gar M	VELO etropolit EUDP/ICB	an City	NT PRO	JECT	
					of Field Dens		Month	Novembe	r
		Lan	ation:-R-			-	Year	2018	
		Loc	ation:-K-		e content %	Danci	Type of Material ty(gm/cc)	Sub-Base	1
Sn.	Lab.Ref.no	Testing Date	Chainage		Field MC%	Max.Dry density	Field Dry	Compaction Compaction	Specif
31	RUDP-SB-FD-1, L/S	7-Nov-18	1+350	5,20	5.30	2.224	density, 2.145	96.44	ed
32	RUDP-SB-FD-1, R/S	7-Nov-18	1+400	5.20	4.91	2.224	2.143	95.35	95
33	RUDP-SB-FD-1, R/S	7-Nov-18	1+480	5.20	4.91	2.224	2.121		95
34	RUDP-SB-FD-1, L/S	7-Nov-18	1+550	5.50	5.07			95.23	95
35	RUDP-SB-FD-1, L/S	7-Nov-18	1+590	5.50	4.99	2.223	2.157	97.02	95
36	RUDP-SB-FD-1, L/S	7-Nov-18	1+650	5.50		2.223	2.137	96.14	95
37	RUDP-SB-FD-1, R/S	8-Nov-18			5.06	2.223	2.141	96.31	95
38	RUDP-SB-FD-1, R/S		1+700	5.80	4.24	2.227	2.176	97.71	95
39		8-Nov-18	1+750	5.80	5.03	2.227	2.158	96.90	95
	RUDP-SB-FD-1, C/L	8-Nov-18	1+800	5.80	4.79	2.227	2.163	(97.11	95
40	RUDP-SB-FD-1, L/S	8-Nov-18	1+900	5.75	5.35	2.230	2.148	(96.31	95
41	RUDP-SB-FD-1, L/S	8-Nov-18	1+950	5.75	4.97	2.230	2.181	97.80	95
42	RUDP-SB-FD-1, R/S	8-Nov-18	2+000	5.75	5.38	2.230	2.199	198.63	95
43	RUDP-SB-FD-1, C/L	8-Nov-18	2+100	5.20	5.42	2.226	2.131	(95.72	95
44	RUDP-SB-FD-1, R/S	8-Nov-18	2+150	5.20	5.90	2.226	2.195	198.63	95
45	RUDP-SB-FD-1, R/S	8-Nov-18	2+210	5.50	4.80	2.226	2.148	(96.48	95
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Va		UCTION GROUPERING CO. I	.TD	BUILDING CONSUL //erified By Aty Enginne	CHO PVT.	THORITY LTD AND	PLUS ENGINEE IMANDU, NEPA Ar	NT VENTURE WIRS & ARCHITEC	TH B.N. CTS (P)



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

				202			Month Year	Nove 20	18
_		1	ocation:-l	R-63	e content %	Donoite	ype of Material /(gm/cc)	Compac	Base V
Sn.	Lab.Ref.no	Testing Date	Chainage		Field MC%	Max.Dry	Field Dry	Compac	Specif
	DUDD CD ED 1 D/C	7.31 10	0.020	5.50	4.00	density	density,	tion	ed
1	RUDP-SB-FD-1, R/S	7-Nov-18	0+030	5.50	4.89	2.230	2.161	/96.62	95
2	RUDP-SB-FD-1, C/L	7-Nov-18	0+080	5.50	5.83	2.230	2.183	97.88	95
3	RUDP-SB-FD-1, R/S	7-Nov-18	0+150	5.50	4.85	2.230	2.123	195/21	95
4	RUDP-SB-FD-1, L/S	7-Nov-18	0+190	5.50	√5.13	(2.230	/2.130	95.51	95
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	Contrac	ctor				Consu	ltant		
	ZHONGHENG CONST				ING DESIGN N. CONSULT ARCHITECT	ANCY PVT.		US ENGIN	

Checked By Submitted By Engineer Contract Manager

Verified By Approved By Qty Enginner/CSE Team Leader



REGIONAL URBAN DEVELOPMENT PROJECT Biratnagar Metropolitan City Contract No:- RUDP/ICB/BRT-02 Summary Sheet of Field Density Test Month November 2018 Year Location:-Rani-site,Bhattimode Type of Material Sub-Base Moisture content % Density(gm/cc) Compaction % Lab.Ref.no Sn. Testing Date Chainage Max.Dry Field Dry OMC% Field MC% Compac Specifi density RUDP-SB-FD-1, R/S density. tion ed 8-Nov-18 0 + 0405.50 5.48 -2.226-2.182 98,03 2 RUDP-SB-FD-1, C/L 95 8-Nov-18 0 + 0905.50 5.39 12.226 12.149 96.55 95 3 RUDP-SB-FD-1, L/S 8-Nov-18 0 + 1505.50 74.82 2.226 2.119 95.20 RUDP-SB-FD-1, R/S 95 8-Nov-18 0 + 1905.50 15.43 2.226 2.195 198.60 95 RUDP-SB-FD-1, C/L 8-Nov-18 0 + 2205.50 (5.35 2.226 2.120 95.23 RUDP-SB-FD-1, R/S 95 8-Nov-18 0 + 2505.50 5.24 2.226 /2.163 97.15 RUDP-SB-FD-1, L/S 95 8-Nov-18 0 + 2905.50 15,80 2.146 2.226 (96.41 95 8 RUDP-SB-FD-1, C/L 8-Nov-18 0 + 3205.50 5.48 (2.139 2.226 96.11 95 RUDP-SB-FD-1, R/S 9 8-Nov-18 0+350 5.50 , 5.26 2.226 2.191 198.42 95 RUDP-SB-FD-1, R/S 8-Nov-18 0 + 3905.50 5.98 2.226 2.158 196.95 95 RUDP-SB-FD-1, L/S 8-Nov-18 0 + 4255.00 5.96 2.211 2.150 197.22 95 Contractor Consultant ZHONGHENG CONSTRUCTION GROUP BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE INTERNATIONAL ENGINEERING CO. LTD WITH B.N. CONSULTANCY PVT, LTD AND PLUS ENGINEERS & ARCHITECTS (P) LTD, KATHMANDU, NEPAL Vadhas Checked By Submitted By Verified By Engineer Approved By Contract Manager Qty Enginner/CSE



Team Leader

Sn. 1 2 3	Lab.Ref.no								
1 2	Lab Dafas		CO. 300 TAN				Year	201	
1 2	Lab Dafas	1	ocation:-		e content %	Donoite	pe of Material (gm/cc)	Sub-B	
1 2		Testing Date	Chainaga			Max.Dry	Field Dry	Compaction	
2	Lab.RCI.no	resting Date	Chamage	OMC%	Field MC%	density	density,	%	Specifie %
2	RUDP-SB-FD-1, RHS	25-Nov-18	0+030	5.10	/5.36	/2.196	2.131	√97.05	95
$\overline{}$	RUDP-SB-FD-1, LHS	25-Nov-18	0+060	5.10	/5.56	2.196	2.103	95.76	95
	RUDP-SB-FD-1, CL	25-Nov-18	0+090	5.10	4.17	2.196	2.139	97.39	95
4	RUDP-SB-FD-1, LHS	25-Nov-18	0+120	5.10	5.13	2.196	2.130	96.99	95
-	RUDP-SB-FD-1, RHS	25-Nov-18	0+180	5.10	4.82	2.196	(2.151	(97.93	95
$\overline{}$	RUDP-SB-FD-1, RHS	25-Nov-18	0+210	5.10	4.65	2.196	(2.099	95.60	95
7	RUDP-SB-FD-1, LHS	25-Nov-18	0+240	5.10	6.08				
8	RUDP-SB-FD-1, CL	25-Nov-18	0+240	5.10	5.52	2.196	(2.089	A5.11	95
U	KODI -SD-I D-1, CL	23-NOV-18	01290	3.10	13.32	2.196	7 2.111	/96.13	95
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1	INTERNATIONAL ENGI	NEERING CO.	LTD	В.			LTD AND PLU , KATHMAN	S ENGINEER	S &



			Biratnagar Me Contract No:- R Summary Sheet of M	tropolitan C UDP/ICB/BRT	ity 7-02	PRO	DIEC	.1	
						Mo	onth:		vember
						Y	ear	1	2018
			Locatio	n:-R-2			pe of terial	Su	b grade
Sn.	Lab.Ref no.	Location of Sample	Source of Sample	Date of Testing	MDD	OMC	P1%	CBR%	Remarks
1	RUDP-SG-01	R-2, (0+100)	Existing Road	1-Nov-18			18.92		
2	RUDP-SG-02	R-2, (0+200)	Existing Road	1-Nov-18	1.960	(8.40	X1.57	/5.90	
3	RUDP-SG-03	R-2, (0+400)	Existing Road	2-Nov-18	(1.973	1.80	8.50	6.14	
4	RUDP-SG-04	R-2, (0+500)	Existing Road	2-Nov-18	1.994	/7.20	(9.26	6.92	
5	RUDP-SG-05	R-2, (0+600)	Existing Road	2-Nov-18			11.26	1	
6	RUDP-SG-06	R-2, (0+700)	Existing Road	2-Nov-18	2.030	/5.20	19.20	/6.20	
7	RUDP-SG-07	R-2, (0+750)	Existing Road	2-Nov-18			10.06		
8	RUDP-SG-08	R-2, (0+820)	Existing Road	2-Nov-18			/7.56		
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		Contractor				Consult	ant		7
		CONSTRUCTION GROUP IS ENGINEERING CO LTD	NTERNATIONAL	BUILDING DESI WITH B.N. CONSI ARCHIT	ULTANC	HORITY Y PVT. L	(P) LTD		GINEERS
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ieck	ed By eer		Submitted By Contract Manager	Verified By			Approve	аВу	



			Dummai	y Sheet 0	f Field Densit	y rest		/	
							Month	Novem	
		Ť.	ocation:	D 2		-	Year	201	-
		L	ocation.		e content %		ype of Material /(gm/cc)	Sub-G Compac	
Sn.	Lab.Ref.no	Testing Date	Chaniage		Field MC%	Max.Dry density gm/cc	Field Dry density, gm/cc	Compaction %	Specified %
1	RUDP-SG-FD-1, L/S	4-Nov-18	0+050	8.40	(5.20	1.960	1.903	97.11	95
2	RUDP-SG-FD-1, L/S	4-Nov-18	0+080	8.40	5.48	1.960	1.871	95.47	95
3	RUDP-SG-FD-1, C/L	4-Nov-18	0+120	8.40	4.58	1.960	7.918	97.84	95
4	RUDP-SG-FD-1, R/S	4-Nov-18	0+150	8.40	5.31	1.960	1.908	97.32	95
5	RUDP-SG-FD-1, L/S	4-Nov-18	0+190	8.40	₹5.85	1.960	(1.931	98.51	95
6	RUDP-SG-FD-1, R/S	4-Nov-18	0+210	8.40	4.20	1.960	7.880	95.93	95
7	RUDP-SG-FD-1, L/S	4-Nov-18	0+250	8.40	(5.64	1.960	(1.870	95.39	95
	RUDP-SG-FD-1, R/S	4-Nov-18	0+300	8.40	/5.39	1.960	(1.901	(97.00	95
	RUDP-SG-FD-2, C/L	4-Nov-18	0+320	8.40	(6.36	1.960	1.915	97.70	95
10	RUDP-SG-FD-2, L/S	4-Nov-18	0+360	8.40	6.58	1.960	(1.867	95.25	95
_	RUDP-SG-FD-2, C/L	4-Nov-18	0+390	8.40	(5.83	1.960	(1.932	98.57	95
12	RUDP-SG-FD-2, R/S	4-Nov-18	0+410	7.80	5.74	1.973	(1.926	97.61	95
	RUDP-SG-FD-2, L/S	4-Nov-18	0+440	7.80	(5.28	1.973	(1.942	98.44	95
_	RUDP-SG-FD-2, C/L	4-Nov-18	0+460	7.80	5.69	1.973	1.913	96.97	95
15	RUDP-SG-FD-2, R/S	4-Nov-18	0+480	7.80	(6.50	1.973	1.928	97.71	95
16	RUDP-SG-FD-2, L/S	4-Nov-18	0+490	7.80	6.32	1.973	1.948	98.73	95
17	RUDP-SG-FD-3, L/S	5-Nov-18	0+520	7.20	(6.13	1.994	(1.949	97.76	95
18	RUDP-SG-FD-3, C/L	5-Nov-18	0+550	7.20	(6.58	1.994	1.903	95.46	95
19	RUDP-SG-FD-1,3L/S	5-Nov-18	0+590	7.20	5.83	1.994	1.960	(98.29	95
20	RUDP-SG-FD-3, R/S	5-Nov-18	0+620	7.20	(5.74	1.994	(1.925	196.53	95
	RUDP-SG-FD-3, L/S	5-Nov-18	0+680	7.20	(6.55	1.994	(1.945	97.55	95
	RUDP-SG-FD-3, R/S	5-Nov-18	0+720	5.20	/5.69	2.030	1.974	97.22	95
23	RUDP-SG-FD-3, C/L	5-Nov-18	0+750	5.20	6.50	2.030	1.961	(96.62	95
	RUDP-SG-FD-3, R/S	5-Nov-18	0+760	5.20	6.32	2.030	(1.982	97.62	95
25	RUDP-SG-FD-4, L/S	5-Nov-18	0+780	5.20	5.13	2.030	1.975	97.29	95
26	RUDP-SG-FD-4, L/S	5-Nov-18	0+800	5.20	5.67	2.030	(1.931	95.10	95
27	RUDP-SG-FD-4, C/L	5-Nov-18	0+820	5.20	6.18	2.030	1.945	95.81	95
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1	Contract ZHONGHENG CONSTR NTERNATIONAL ENGIN	ECTION GRO	DUP LTD	BUILDI B.N. CON	SULTANCY I	AUTHORIT' PVT. LTD A	nsultant Y (P) LTD IN . ND PLUS ENC HMANDU, M	JOINT VENTU	RE WITH

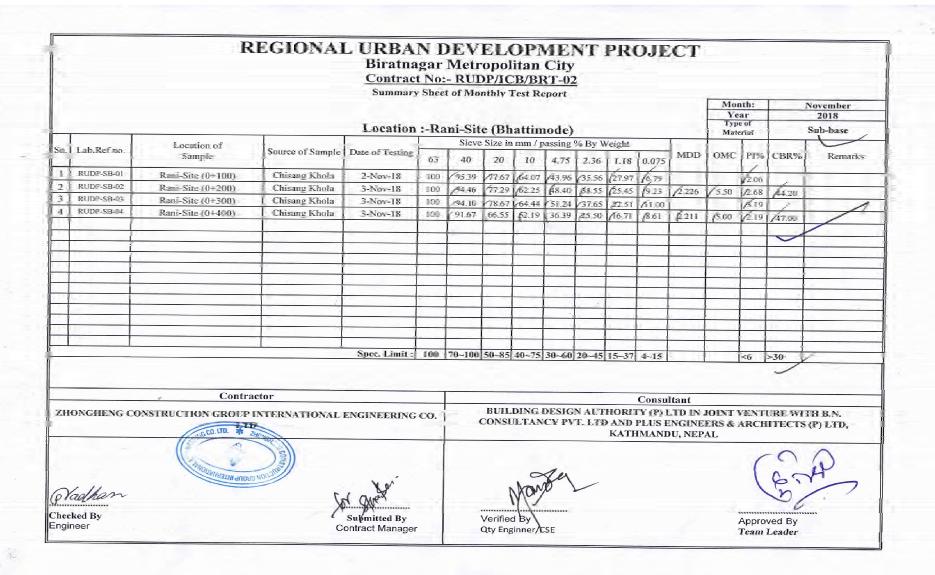


							nth:		vember 2018
			Location:-R-2	Branch Road		Тур	oe of erial		b grade (
Sn.	Lab.Ref no.	Location of Sample	Source of Sample	Date of Testing	MDD	OMC	PI%	CBR%	Remarks
1	RUDP-SG-01	R-2,Branch Road (0+050)	Existing Road	6-Nov-18	1.970	7.90	7.38	5.88	1
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		Contractor	1			Consulta		_	
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ZHO	ONGHENG C	ONSTRUCTION GROUP IN ENGINEERING CO. LTD	TERNATIONAL	BUILDING DESIG WITH B.N. CONSU	IN AUTH	ORITY (P) LTD I	N JOINT V	VENTURE
	(Say	ENGINEERING CO. LID		ARCHITE	CTS (P)	LTD, KA	THMAN	DU, NEPA	L
		ORLUNATION SUCH STREET							

REGIONAL URBAN DEVELOPMENT PROJECT Biratnagar Metropolitan City Contract No:- RUDP/ICB/BRT-02 Summary Sheet of Field Density Test Month November Year 2018 Location:-R-2, Branch Road Type of Material Sub-Grade Compaction % Moisture content % Density(gm/cc) Max.Dry Field Dry Sn. Lab.Ref.no Testing Date Chanage Specified OMC% Field MC% density density, Compaction % gm/cc gm/cc % RUDP-SG-FD-1, R/S 18-Nov-18 0+020 7.90 6.04 1.970 1.875 95.19 95 2 RUDP-SG-FD-1, L/S 18-Nov-18 0+040 7.90 5.35 1.970 1.927 97.84 95 3 RUDP-SG-FD-1, C/L 18-Nov-18 0+060 7.90 5.54 1.970 1.895 96.20 95 4 RUDP-SG-FD-1, R/S 18-Nov-18 0+070 7.90 5.78 1.970 1.891 96.01 95 co Contractor Consultant BUILDING DESIGN AUTHORITY (P) LTD IN JOINT VENTURE WITH ZHONGHENG CONSTRUCTION GROUP B.N. CONSULTANCY PVT. LTD AND PLUS ENGINEERS & ARCHITECTS INTERNATIONAL ENGINEERING CO. LTD P) TD, KATHMANDU, NEFAI Nadhan Checked By Submitted By Verified By Approved By Engineer Contract Manager Qty Enginner/CSE Team Leader

		R	EGIONA	Biratna	gar	Metr	opol	itan	City		PRO)JE	CT				
				Contract	t No:	- RUI	P/IC	B/BI	RT-02	2							
				Summary	Shee	t of Mo	nthly 7	est Re	eport								
													-	Mor		_	vember
				- unnovers										Тур			2018
				Location:	-K-(Mate	rial	St	ib-base
Sn	Lab Ref no.	Location of	Source of Sample	Deta of Emriso		Sieve	Size in	mm/p	assing '	% By W	eight.		MDD	01.00	1000	CBR%	
- Ju	Lab. Net 110.	Sample	source of Sample	Date of Testing	63	40	20	10	4.75	2.36	T.18	0.075	MUD	UNIC	1 276	CBK701	Remark
10	READS SB-01	R-63,(0±090)	Chisang Khola	3-Nov-18	100	/93.30	69.66	52.17	38.17	29.10	16,65	6.90	2.230	₹3.50	6.83	53.00	/
2	RUD#-SB-02	R-63,(0+090)	Chisang Khoia	3-Nov-18	100	91.56	63.93	55.67	37.99	31.38	18.43	9.56	-		128		
																,	
								2			2						
						1											
	-														-		
1					100												
-																	
-	+																
1								FC 17									
				Spec. Limit :	100	70~100	50~85	40~75	30~60	20~45	15~37	4-55			<6	>30	
		Conti	ractor								C	onsult	ant				
ZHO	NGHENG CON	STRUCTION GRO	UP INTERNATION	NAL ENGINEER	ING											RE WITI	
			LTD \SI			C	UNSUL	TANC	YPVT				NGINEE U, NEPA		KCHI	TECTS (P) LTD,
		The .	511	i							*** I III	LAND	o, INDEA		1	10	
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pla	dhan		(i	J. Shr			1	10/							1	6	
	ed By			Submitted By			Verifie	d By	7	_					Appro	oved By	
naine				Contract Manager	r i		Qty En		CSE							Leader	







ANNEX-4: SOCIAL SAFEGUARD MONITORING/ENVIRONMENTAL MONITORING FORMATS ATTACHED



<u>Environmental Monitoring Format</u> 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: Nov 2018

Checklist

SN	Activity	Description/Present Status (Compliance/Partially Compliance/Non Compliance	Remarks/ Corrective actions for Non- Compliance
1.1	Training Health, Safety and EMP trainings and awareness	Yes	
1.2	Others awareness and skill trainings	No	
2 2.1	Occupational health and safety 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	DDC, Kanchanbari,	
3.1	Location	Shanti Chowk, Rani	
3.2	First aid facilities available at camp and worksites	Yes	
3.3	Drinking water supply and sanitation facilities/ pit latrines		
3.4	Waste Disposal and Management facilities	Tap water/ Hand Pump Yes	
3.5	Type of fuel used for cooking	L.P.G	
4	Spoil and Construction material Management	LEAST MANY TO SE	
4.1	Cut and fill balance maintained or not, Reuse of spoil materials	Cut & Fill balance maintained	
4.2	Use of safe spoil disposal locations	Not Applicable	
4.3	Disturbance to Pedestrian and traffic movement	No any disturbance to pedestrians & traffic	







4.4	Use of private land and agreement with land owners	movement Yes	
5	Air, Noise and Water Pollution	A Control of the Control of the	
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	A. P. A. A. A. A.	
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		Not Applicable	
7.2	Building structures	Not Applicable	
1.2	Other utilities	, ior i pphodolo	
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		
9	Sites for cultural and religious values	Not Applicable	
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	
12.1	Employment to local people Men and women	Yes, both men and	Male-64, Female-2
12.2	Child labor (if any)	women 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

Inventory of Social Facilities

1.General information

Subproject: -RUDP/ICB/BRT/2

Month/Year: -Nov 2018

Name of Contractor: -ZHONGGHENG Construction

2.Total number			Camp-1 (Madhu	Camp-2 (Koshi	Camp-3 (DDC)	Camp-4 (Abbul+Na	Camp-S (Dinesh+	Camp-6 (Jeevan+	Camp-7 (Jalauddi	Camp-8 (Abbas+R	Camp-9 (Surya+V	Camp- 10(Anwer	
Type of Worker	S		mara)	Yard)	3/17	varaj)	company	Dipen)	n+shiv)	oshan)	ikram)	+Diwas)	Remark
Local		Male	0	0	0	0	13	0	13	0	0	38	64
Fema		Female	0	0	0	0	0	0	0	0	0	2	2
Non-Local Ma		Male	37	55	31	14	62	13	37	31	49	19	348
		Female	3	2	0	0	0	0	0	0	0	0	5
Child Labour		Male	0	0	0	0	0	0	0	0	0	0	0
		Female	0	0	0	0	0	0	0	0	0	0	0
3. Source and a	dequacy	of drinki	ng wate	r facilit	y in the	labour o	amp(us	e code)					
Source	5	camp-1	Camp-2	Camp-3	Camp-4	Camp-5	Camp-6	Camp-7	Camp-8	Camp-9	Camp-10	Ren	marks
a. Piped water		2	2	2	2	3	2	1	2	3	3		22
b.Well/Spring		1	1	1	1	1		1	-	_	1		7
c.Tanker													
d													
Code:													
4. Type and nu	mber of	toilets in t	he labo	ur cam	p (write	down tl	ne num	ber)					
Туре	Camp-1	Camp-2	Camp-3	Camp-4	Camp-5	Camp-6	Camp-7	Camp-8	Camp-9	Camp-10		Remarks	
a.Pit Latrine	-					4		-	1				
b.Pan	2	2	2	3	3	2	2	2	2	3		23	
c.Open													
d													
5. Energy used	in labou	r camp (tie	k mark)									
Sources of Ene	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											1		
100							-						







Regional Urban Development Project(RUDP)

Social Safeguard Monitoring

Inventory of Social Facilities

1.General information

Subproject: -RUDP/ICB/BRT/2

Month/Year:

Nov-18

Name of Contractor: -ZHONGGHENG

Construction GroupInternational Engineering

Contract Package: RUDP/ICB/BRT/2

6. Sources and	legal sta	itus of fi	rewood	used in l	abour ca	mp and i	ts legal st	atus (use	code)		
Source &	Camp-1	1 400				Camp-6	Camp-7	Camp-8	Camp-9	Camp-10	Remarks
a.Source1	4	4	4	4	4	4	4	4	4	4	
b.Legal Status2	3	3	3	3	3	3	3	3	3	3	

Code

1.Source: Community Forest-1, Government Forest-2, Private Forest-3, Local Market-4

2.Legal Status: Legal Agreement-1, Verbal Agreement-2, Non-Agreement-3

7. Type and Ownership of labour camp (use code)

Type & Owners	Camp-1	Camp-2	Camp-3	Camp-4	Camp-5	Camp-6	Camp-7	Camp-8	Camp-9	Camp-10	Remarks
a.Type1	2	2	2	1	1	1	1	1	1	1	
b.Ownership2	1	1	1	1	1	1	1	1	1	1	

Code

1.Camp Type: Hired House-1, Tented-2

2.Ownership: Private-1, Public-2, Government-3

8. Availability of first aid and safety (tick mark for first aid and number for safety)

First Aid & Safety	Camp-1	Camp-2	Camp-3	Camp-4	Camp-5	Camp-6	Camp-7	Camp-8	Camp-9	Camp-10	Remarks
a. First-Aid Kit	1	1	1	1	1	1	1	1	1	1	10
b.Helmet	40	60	35	20	75	20	50	35	50	60	445
c. Gloves	40	60	35	20	75	20	50	35	50	60	445
d.Boots	40	60	35	20	75	20	50	35	50	60	445
e.Masks	40	60	35	20	75	20	50	35	50	60	445
f											

9. Number of locally+non locally employed labour involved in construction works (number)

Sex	Brahmir	Chhetri	Janajati	Dalits	Muslim	Madhesi	Others	Remarks
Male	0	0	82	48	51	220	8	409
Female				7				7
11.Note of	remarks		1 1					

Prepared by

Verified by

Monitored by



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

Subproject Road : -RUDP/ICB/BRT/2

Month/Year: Nov 2018

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

Contract Package: RUDP/ICB/BRT/2

		Co	mpliance Sta	itus	Implementing		
S.N	Key Social Issuse	Full	Partial	None	Agency	Note of Remarks	Deadline
1	Availability of drinking water services	٧					
2	Availability of toilet facility in campsite	٧					
3	Legal source of fuel wood use			٧			
4	Legal document of fuel wood source			٧			
5	Use of safety accessories	٧					
6	Availability of first aid facility	٧					
7	Basic wage rate to construction workers	٧					
8	Equal wage rate to male and female workers		٧				
9	Compensation of temporarily occupied land	٧					
10	Compensation of temporarily occupied buildings	٧					
11	Legal document of temporarily occupied assets	٧					
12	Non use of child labour in construction activities	٧					

Wadhan Prepared by:

Verified by:

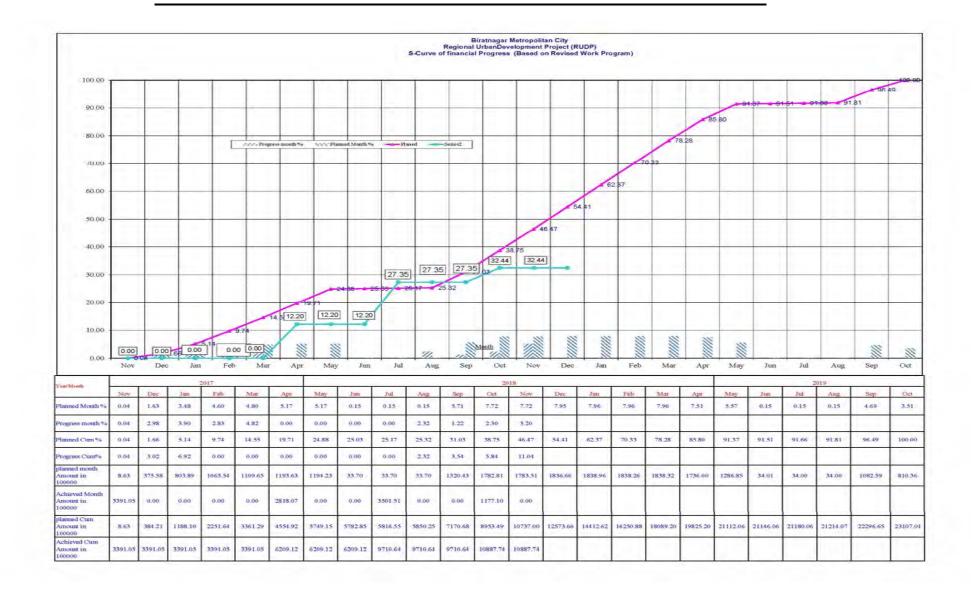
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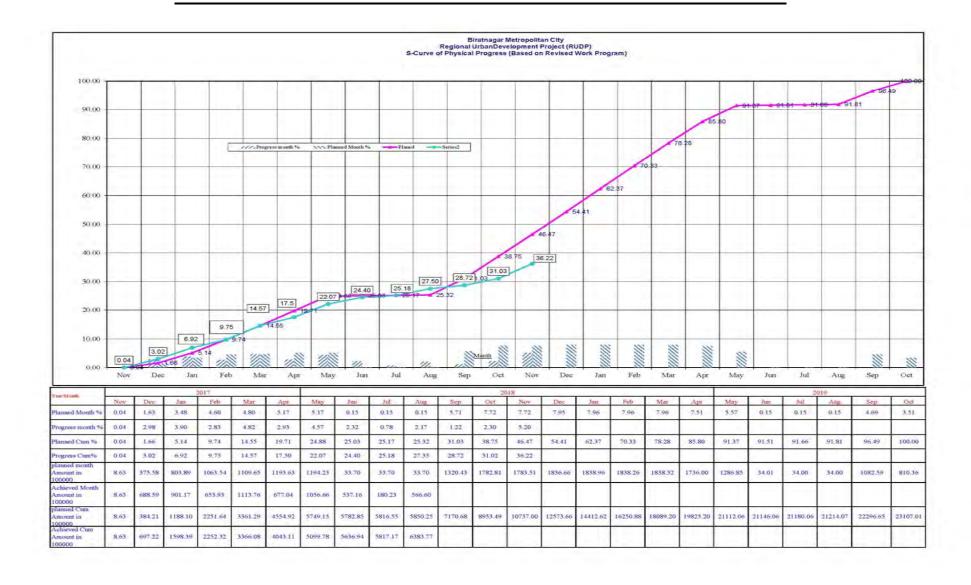
ANNEX-5: S-CURVE

Attached











ANNEX-6: MASTER PLAN OF RUDP PROJECT



