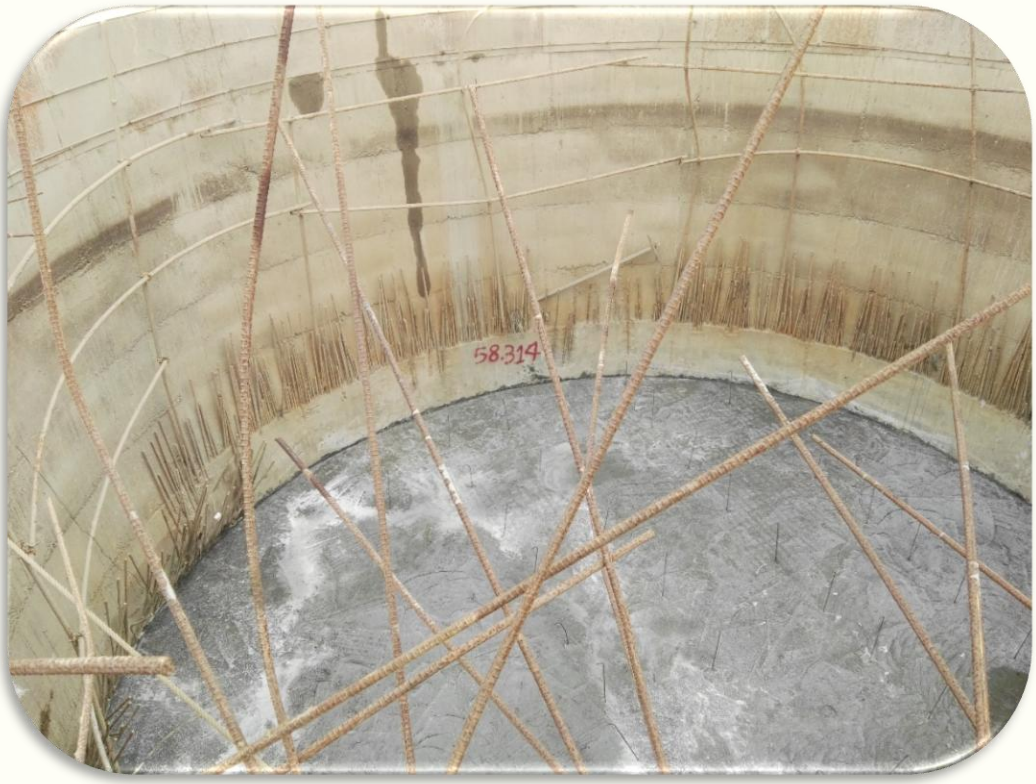
In association with

Brisbane City Enterprise Pty Ltd, Australia
AQUA Consultant and Associates Ltd, Bangladesh
Building Design Authority, Nepal
CEMAT Consultants, Nepal

Monthly Progress Report (JANUARY,2018)

Secondary Towns Integrated Urban Environmental Improvement Project (STIUEIP), Biratnagar, Nepal

22 Feb, 2018



Biratnagar Metropolitan City (BMC), Nepal

AUSTRALIA | ASIA | MIDDLE EAST | AFRICA | PACIFIC

PREPARATION, REVIEW and AUTHORISATION

Revision	Date	Prepared by	Reviewed by	Approved for issue by
	22 Feb, 2018	DSC		

ISSUE REGISTER

Distribution List	Date issued	Number of Copies
Biratnagar Metropolitan City, Nepal:	22 Feb, 2018	3
SMEC staff:		1
Associates:		1
Nepal Office Library(SMEC office location):		1
SMEC Project File:		1

SMEC COMPANY DETAILS

SMEC International Pty Ltd
South Asia Regional Office, H-372, R-6, DOHS Baridhara, Dhaka, Bangladesh

Tel: **+8802 841 3571**

Fax: **+8802 882 7545**

Email: smec@smec.com

www.smec.com

Table of Contents

List of Tables:

List of Figures:

ANNEXES:

ANNEX-1: Photographs of Jan, 2018
ANNEX-2: Minutes of Meeting Jan, 2018
ANNEX-3: A Laboratory Test Results of Jan, 2018
ANNEX-4: Contractor's Progress Report for Jan, 2018

1. SALIENT FEATURE OF CONTRACT PACKAGE: STIUEIP/W/BRT/ICB-01

General Features	
Name of Project	Secondary Towns Integrated Urban Environmental Improvement Project(STIUEIP)
Executing Agency	Government of Nepal, Ministry of Urban Development Department of Urban Development and Building Construction (DUDBC)
Implementing Agency	Biratnagar Metropolitan City, Biratnagar
Funded By	Asian Development Bank & Government of Nepal
Package	Sewerage and Drainage Network, Wastewater Treatment Plant and Road and Lanes Improvement Sub Project
Contract No.	STIUEIP/W/BRT/ICB-01
Location	Biratnagar Metropolitan City, Biratnagar
Consultant	SMEC in association with Brisbane/AQUA/BDA/CEMAT
Contractor	CTCE-KALIKA Joint Venture
Date of Commencement	08 December, 2013
Original Completion Date	26 May, 2016
Date of Completion as per EOT-03	30 Nov, 2017
Revised date of completion as EOT-04 (**approved**)	**31 March, 2018**
Revised Contract Amount including PS and VAT w.r.t VO-03	**NRs. 2,956,290,542.71**
Recommended Amount (Up to IPC- 29)	**NRs. 2,786,105,509.81 (Including PS & VAT)**
Physical Progress till January, 2018	**94.24% (wrt to vo-03)**
Financial Progress	**89.78% (wrt to vo-03)**

2. INTRODUCTION / BACKGROUND

a) SMEC International Pty (Australia)in association with Brisbane City Enterprise Pty Ltd (Australia), AQUA Consultant and Associates Ltd (Bangladesh), Building Design Authority (Nepal) and CEMAT Consultants(Nepal) have entered for a Contract of Consulting Services with Secondary Towns Integrated Urban Environmental Improvement Project (STIUEIP), Project Implementation Unit(PIU), Biratnagar Sub Metropolitan City on 7th December 2011. This monthly Progress Report of **January, 2018** has been submitted to the PIU as per the Work Program proposed in the consultant's technical proposal as well as TOR of the consultant.

b) Secondary Towns Integrated Urban Environmental Improvement Project(STIUEIP), 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 2650-NEP. As per PAM contribution from GoN is 3.99 million USD, Asian Development Bank (ADB) 18.86 million USD and Biratnagar Sub-Metropolitan City (BSMC) 1.99 million USD while contingency is 2.88 million USD for Secondary Towns Integrated Urban Environmental Improvement Project (STIUEIP), Biratnagar. The cost sharing has been revised in April, 2013 as: Government of Nepal (GoN) is 5.960 Million USD, Asian Development Bank(ADB)24.214 Million USD, TDF loan 4.098 Million USD and Biratnagar Sub-Metropolitan City(BSMC)2.980 Million USD and in total 37.252 Million USD.

c) 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 proposed project Secondary Towns Integrated Urban Environmental Improvement Project (STIUEIP) is another step forward to promote healthy cities by creating healthier urban environments and was formulated under the PPTA 2010.

- Contract of consulting services signed on 07 December 2011.
- Design works commenced on 01 January 2012.
- Final design works submitted to the Client on March 2013
- Contract of construction works signed on 02 December 2013
- Construction works commenced on 08 December 2013
- The revised work Programme -3 with S-curve and Resource plan is submitted by the Contractor along with EOT-2.
- After approval of EOT-3 as of 30 November, 2017, Contractor has submitted the draft revised work Programme without S-curve and resource plan.
- EOT-04 (till 31 March, 2017) is approved, revised work Programme with S – Curve and resource plan not received till date from the contractor.

3. SUB PROJECT COMPONENTS

3.1. SEWER LINES

d) The prioritized sewer lines for Final Detailed Engineering Report of BMC are as follows:

Table 1: PROPOSED SEWER LINES in BMC

S. NO.	Description	Unit	Original Quantity	Revised Quantity as per VO-3
1	**Sewerage Pipe Supply and Installation**	m	**63,964.00**	**43,668.50**
	Reinforced Concrete Pipe laying and jointing		**16,612.00**	**19,191.60**
	Line T1 (Secondary	m	3,788.00	5,026.80
	Line T2 (Trunk)	m	8,370.00	9,488.00
	Line T3 (Trunk)	m	4,136.00	4,493.30
	Line T4 (Secondary)	m	318.00	183.50
	HDPE laying and jointing	m	**47,352.00**	**24,476.90**
	Line T1 (Secondary	m	7,124.00	3,817.10
	Line T2 (Trunk)	m	19,410.00	13,595.40
	Line T3 (Trunk)	m	18,606.00	6,947.10
	Line T4 (Secondary)	m	2,212.00	117.30
2	**Manhole (Brick / RCC)**	**no.**	**2,036.00**	**1,434.00**
3	**Sewer Inlet**	**no.**	**3,766.00**	**2,924.00**
4	**House Connection**	**no.**	**5,930.00**	**4,500.00**
5	**Reinstatement of Roads**	**Km**	**66.06**	**44.683**

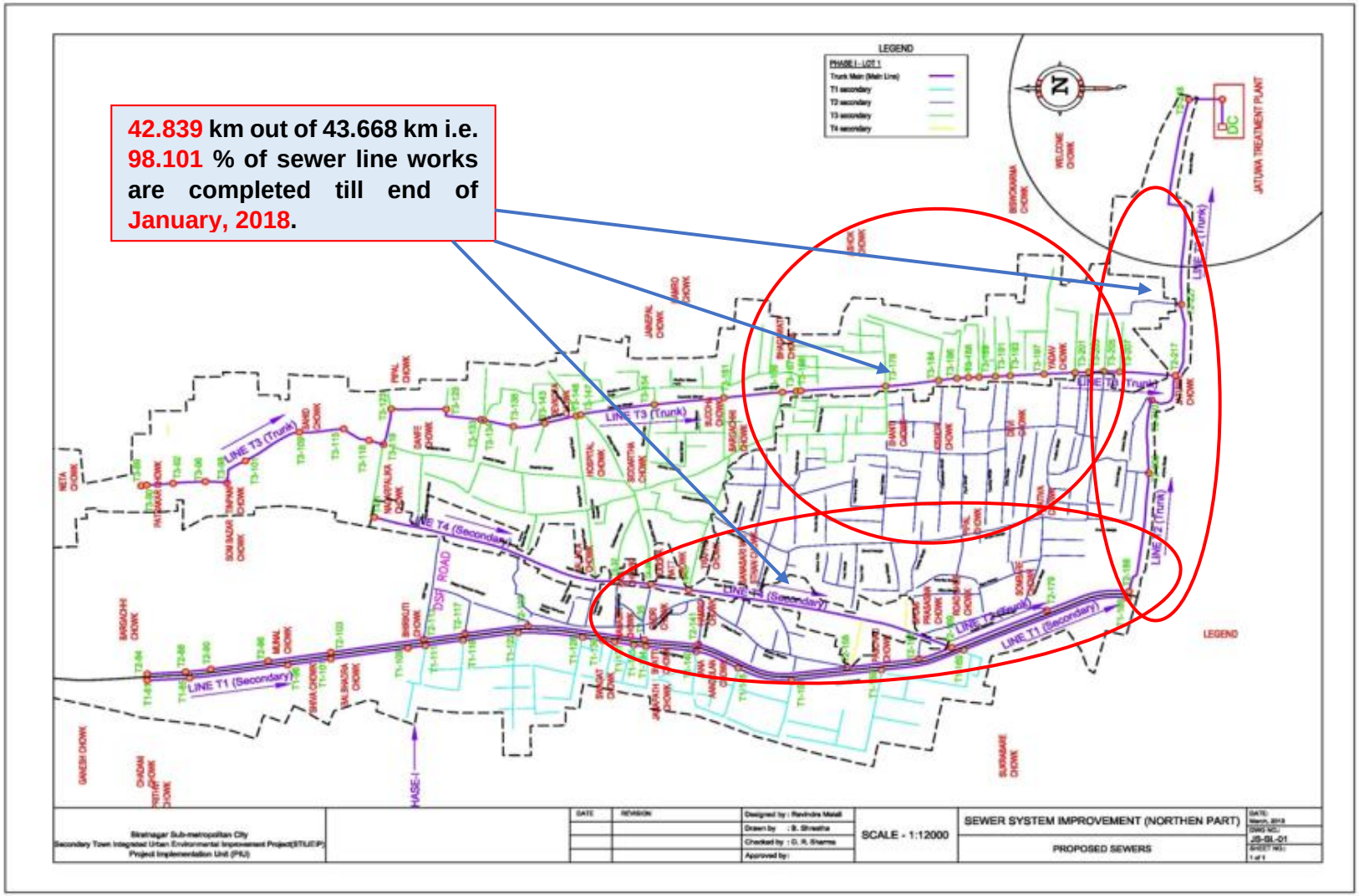


Figure 1: PROPOSED SEWER LINES IN BMC

3.2. STORM WATER DRAIN

e) Most of the storm drains (S13, S11, S9, S5, B1, B2, B3, CN2, CN3 and southern parts) have been provisioned as Phase I priority works. The major storm drain outlets as planned are 14 numbers and catchment areas and discharges are respectively 1,324.2 Ha and 73.21 cum/sec.

Table 2: PROPOSED STORM WATER DRAINS in BMC

S.No.	Description	Unit	Original Quantity	Revised Quantity as per VO-3
A	**Storm Drain for Northern Parts**		**28,491.00**	**27,678.00**
I	Storm Drain Lines	m	28,491.00	
II	Culvert	No.	41.00	
III	Outfall	No.	15.00	
IV	Rain Inlet	No.	30.00	
V	Manhole	No.	30.00	
VI	Canal Crossing	No.	11.00	
B	**Storm Drain for Southern Part**			
I	Brick Masonry Drain	m	**8,483.00**	**6,487.00**
II	Cleaning and Maintenance of Existing Drain	m	7,273.00	
III	Culverts	No.	38.00	
C	**Rehabilitation of Existing Drain**			
I	Drain Cover	m	30,467.00	
II	Cleaning and Maintenance of Existing Drain	m	33,601.00	

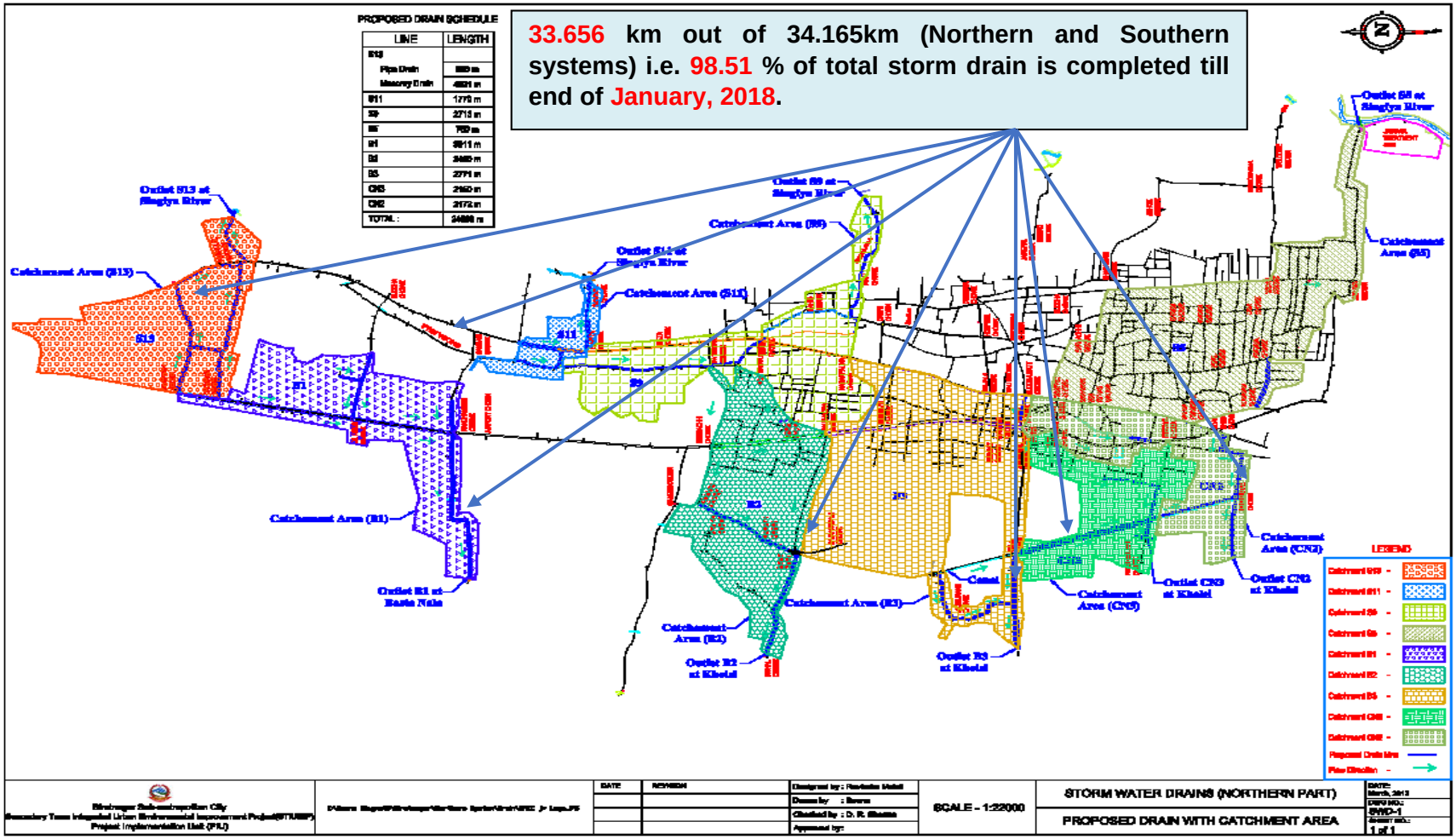


Figure 2: PROPOSED STORM WATER DRAINS IN BMC (Northern Drainage System)

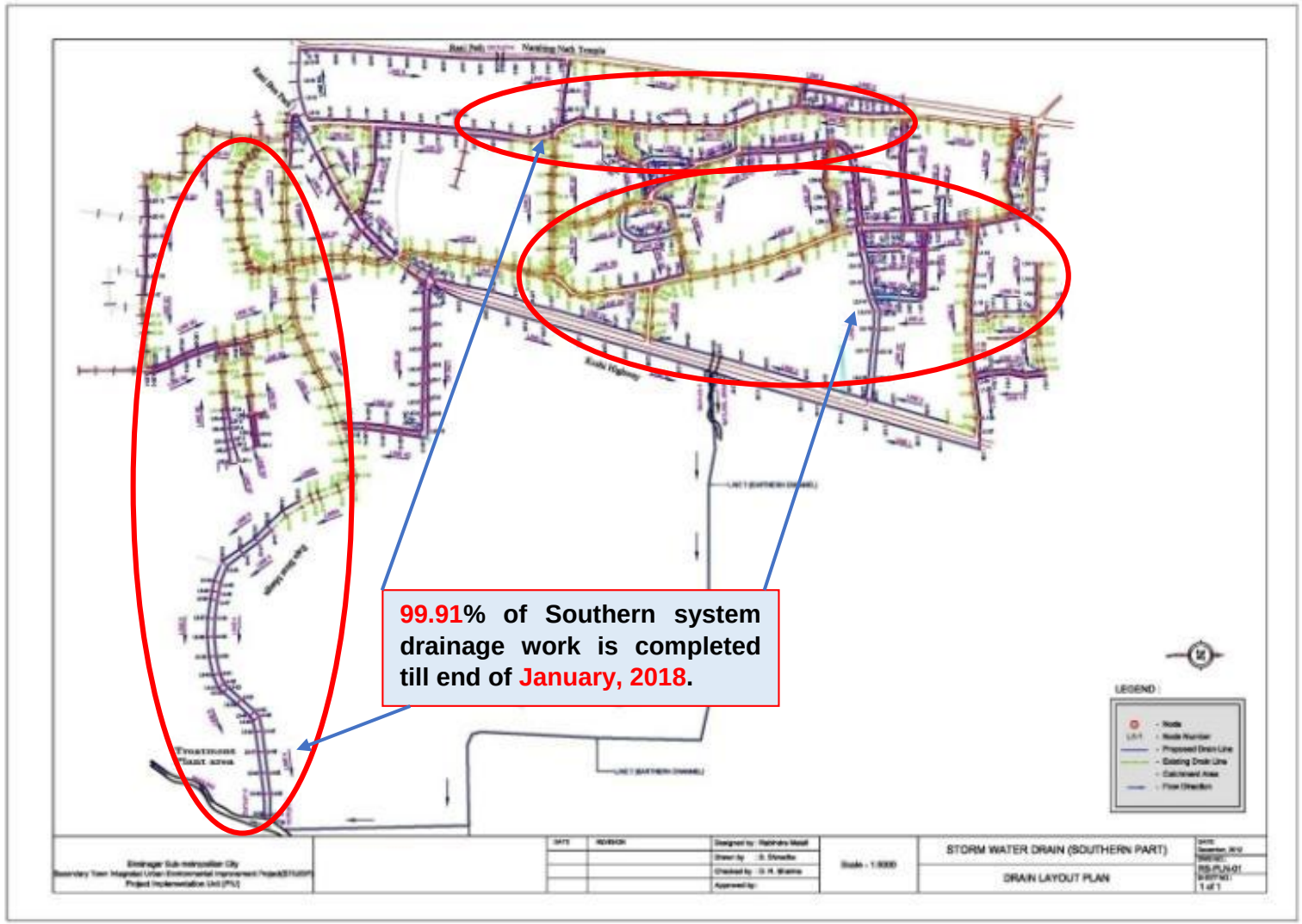


Figure 3: PROPOSED STORM WATER DRAINS IN BMC (Southern Drainage System)

3.3. WASTE WATER TREATMENT PLANTS

f) The quantity of domestic waste water is calculated using water supply rate at 90 liters per person per day in the design year 2035, out of which 80% is converted into waste water. Maximum quantity of waste water is calculated taking peak factor of 1.99 to 2.5. Minimum quantity of sewage is taken as 30% of the average quantity. Commercial / Institutional / Industrial waste water quantity is calculated as 0.10 LPS/ha. While infiltration quantity is calculated as 0.14 LPS/ha in the design year 2035.The total quantity of commercial / institutional / industrial and infiltration waste water estimated as 237.79 LPS in the design year 2035 which is very large in comparison with domestic waste water quantity of 207.18 LPS. The maximum quantity (peak flow) of waste water in the design year 2035 for both Phase I and Phase II are as is estimated at 650.08 LPS. The maximum quantity of the waste water for Phase I is estimated as 213.97 LPS only. The capacity of the Phase I WWTP has been adopted as 214 LPS. The capacity of the Phase II WWTP will be thus 436 LPS. Features of WWTP at Jatuwa are as follows:

Table 3: PROPOSED WASTE WATER COMPONENTS in BMC

S. No.	Description	Unit	Nos.
	Waste Water Treatment Plant Components		
1	By Pass Chamber	No	1
2	Distribution Chamber	No	1
3	Bar Screen Chamber	No	2
4	Sump well with Pumping Station	No	2
5	Collection Chamber1	No	1
6	Oil &Grease Chamber	No	2
7	CollectionChamber2	No	1
8	Grit Chamber	No	2
9	CollectionChamber3	No	1
10	Anaerobic Pond	No	3
11	Facultative Pond	No	3
12	Collection Chamber4	No	1
13	Outfall Structure	No	1
14	Sludge Drying Bed	No	10
15	Enclosure Chamber Shed	No	1
16	Guard House	No	1
17	Office Cum Lab Building	No	1
18	Workshop Building	No	1
19	Generator/Changing House	No	1
20	Entrance Gate	No	1
21	Boundary wall	m	1,340
22	Shallow Tube Well with water Tank	set	1
23	Landscaping and Plantation works	Sq.m.	99,915

24	Site clearance, grubbing, surface dressing	Sq.m.	99,915
25	Road construction	m	1,440
26	Road side drain construction	M	2880
26	River training works	M	600
27	Electromechanical works	Set	1
28	Lab Equipment and installation	Set	1

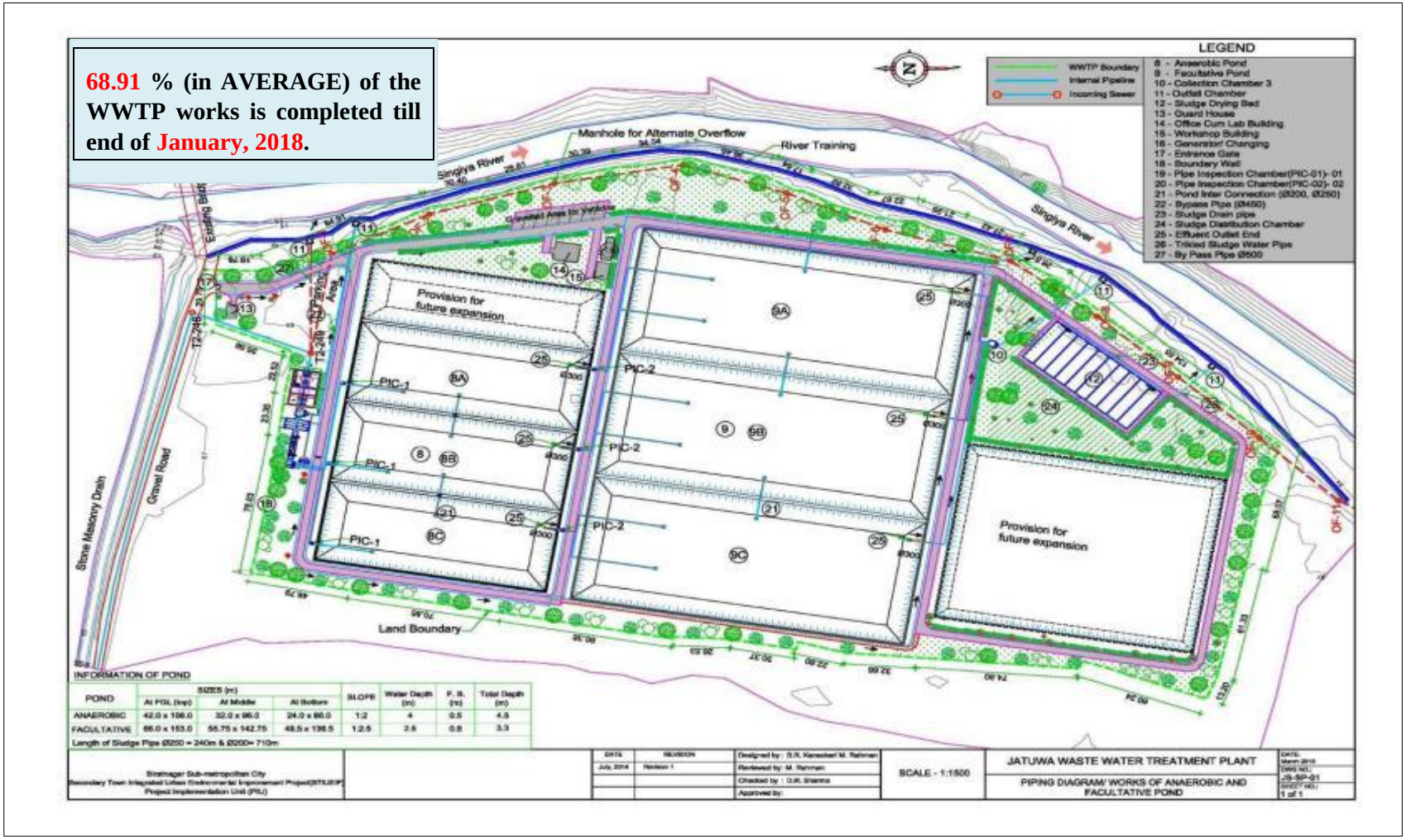


Figure 4: PROPOSED WASTE WATER TREATMENT PLANT at JATUWA in BMC

3.4. ROADS AND LANES

g) 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 3.224 Km road improvement with Asphalt from Pushpalal Chowk to Pani Tanki Chowk is completed where as in other roads 39.543 Km Sub-grade and Sub-base is completed till this month and hence the Project has considered on design based on reinstatement, rehabilitation and upgrading of existing roads and lanes.

Table 4: PROPOSED ROADS in BMC

Description of Item	Quantity
Main Road Improvements (Road from Pushpalal Chowk to Pani Tanki)	**3.224 Km**
Reinstatement and Road Improvements (under Sewer line installation) and WWTP	**41.358 Km**

3.5. ENVIRONMENTAL ASPECT

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

i) had approved the IEE on May14, 2013.

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

k) DSC has prepared and submitted Environmental Progress Reports (Semi-Annual) October 2014 – March 2015 and Quarterly Updated Environmental Report, January – March on 27 May 2015.Recently, the DSC has received comments from PCO to revise semi-annual environmental report. The next Quarterly Updated Environmental Report for the months of April, May and June 2016 and semi – annual report has been submitted in July, 2016. The Updated Environmental Annual Report for the months of January 2017 to June 2017 and July 2017 to December 2017 has been submitted in Dec, 2017.

3.6. SOCIAL ASPECT

l) Secondary Towns Integrated Urban Environmental Improvement Project (STIUEIP) in Biratnagar has commenced from 2010 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 STIUEIP in Biratnagar Metropolitan City (BMC). Besides this, community development and institutional strengthening components, the two other objective focused components of STIUEIP Biratnagar are running various social development programs and activities.

Social development component is one of the major components of STIUEIP Biratnagar that comprises of various social development programs and activities like community development program (CDP), awareness raising, skill development, health and sanitation. Social Development Specialist (SDS) in Design and Supervision Consultant (DSC) is deputed to assist the Project Implementation Unit (PIU) in implementing effectively the social activities to achieve the project goal as envisaged by the project. Monitoring of ongoing social development activities and consultation meetings with community people are the general tasks to be accomplished as regular basis.

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.

Based on the poverty indicators, all details have been documented and shown in the social map. The program area for community development programs has been extended to most poverty stricken area scattered across several wards of the BSMC. The Community Development Program includes meetings, orientation, awareness activities, skill development trainings and health, hygiene and sanitation activities which are conducted and organized by the NGO (Fri PAD).

The updated Semi- Annual Report for the period of January 2017 to June 2017 and July 2017 to December 2017 has been submitted in Dec, 2017.

3.7. FINANCIAL PLAN

m) The Sub-project cost will be disbursed in three years starting from FY2013/14 to 2015/16. It has estimated that 20 percent of the Sub-project cost will be disbursed in first year. Similarly, in second year, 50 percent will be disbursed. Finally, remaining 30 percent of Sub-project cost will be disbursed in third year. Actual disbursement in the first fiscal year was 4.3 % (up to July 2014); 34.3% (up to July 2015 inclusive VO1) in second fiscal year was 56.72% so total was 88.53% (up to August, 2017). Hence the remaining disbursement 11.47 % will be done in fourth year.

3.8. DISBURSEMENT RECORDS IN CONSTRUCTION

Table 5: DISBURSEMENT RECORDS in CONSTRUCTION

S. No.	Description of Payment	Total Bill Amount with VAT & PS	Remark
1	IPC 01		
2	IPC 02	29,553,479.92	
3	IPC 03	50,406,775.75	
4	IPC 04	44,819,505.68	

S. No.	Description of Payment	Total Bill Amount with VAT & PS	Remark
5	IPC 05	23,380,168.96	
6	IPC 06	90,796,339.68	
7	IPC 07	80,854,600.52	
8	IPC-08	122,334,488.86	
9	IPC-09	116,092,187.14	
10	IPC-10	132,327,417.89	
11	IPC-11	169,853,829.07	
12	IPC-12	23,121,515.46	
13	IPC-13	85,563,926.44	
14	IPC-14	163,562,505.71	
15	IPC-15	139,008,112.96	
16	IPC- 16	137,640,413.95	
17	IPC-17	135,118,714.02	
18	IPC-18	39,288,088.98	
19	IPC-19	76,081,596.87	
20	IPC-20	74,522,638.96	
21	IPC-21	152,577,081.94	
22	IPC-22	140,477,295.40	
23	IPC-23	66,139,814.38	
24	IPC-24	110,913,194.49	
25	IPC – 25	169,428,867.45	
26	IPC-26	129,978,851.94	
27	IPC-27	65,357,880.77	
28	IPC-28	84,960,602.31	
29	IPC-29	131,945,614.31	
	Grand Total =	**2,786,105,509.81**	
	Total payment to date including PS & VAT and excluding mobilization =	**2,786,105,509.81**	

4. OBJECTIVES AND SCOPE OF WORKS

4.1. OBJECTIVES

n) The following are the expected physical infrastructure improvement outputs of the project in Biratnagar Metropolitan City:

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

o) 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

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

A. Detailed Design and Procurement Assistance Phase
1. Surveys verification of Feasibility Studies and GIS Base Maps
2. Finalization of Design Criteria, Preparation of Manuals, Guidelines and Systems.
3. Specific design requirements for the sub-projects
   - Improvement and development of drainage and sewerage systems
   - Improvement of urban roads and lanes
4. Project Planning and Management Support to PIU
5. Detailed Engineering Design

B. Construction and Post Construction Management Phase
1. Construction Management and Contract Administration
2. Environmental and Social Compliance Monitoring
3. Implementation of Community Development Program, Community Mobilization and GESI Action Plan
4. Capacity Building of the Municipality and Service Providers for Operational Sustainability

C. Communications, Reporting and Deliverables (Inception Report, Monthly Progress Reports, Interim Report for each of the outputs, Annual Progress Report, Draft Final Report for each of the outputs and Final Report).

5. PROGRESS OF SUB – PROJECT COMPONENTS

5.1. STORM WATER DRAINS

q) The Contractor has resumed the works from mid-December 2015 in difficult situation due to Madesh Strikes and partial fuel supply. But, again they have started the works of Storm drains at S9, CN3L1A and A1, which are in progress. Nominal work in this month due to Festivals.

The contractor has completed storm water drain about 33.659 km out of 34.165 km, 98.51% till Jan, 2018.

5.2. SEWER LINES

r) The Contractor has resumed the sewer works from mid-December 2015 in difficult situation due to Madesh Strikes and partial fuel supply. No work in this month due to rain. Almost, all sewer lines have been disturbed by high flood occurred on 12th August, 2017.

The Contractor has completed sewer lines with HDPE and RCC pipes about 42.839 km out of 43.668 km which is 98.101%, till Jan, 2018.

The proposal of the precast concrete manholes, sewer inlets and house connection chambers had been submitted for review and approval. Approval in consultation with the Employer has been given to the Contractor to execute at site because the proposal comes out to be economical, time effective and environmental friendly and structurally strong enough to carry out the function of their respective items.

The precast concrete house connection chambers, sewer inlets and manholes were installed at sites and found to be effective and we were able to open traffic at the shortest possible time. Especially where the business center with crowds (in R5 and R65 Roads) were very efficient and effective. This has reduced disturbances to the local people and road users, dumping of construction materials, workers and working for long period. This is found to be environment friendly too. Hence, the adaptation of precast units for sewer lines found to be effective and efficient.

During the site visit of delegate at different time in the construction period from BSMC, PMSC, ADB, PCO, local political representatives, TLO, Executive Director of TDF and the Secretary of Ministry of Urban Development have commended.

The payment for the respective item of works as appropriate is being paid under each IPCs for the cash flow and to account disbursement in ADB's disbursement book.

5.3. WASTE WATER TREATMENT PLANT

s) Office cum laboratory building, workshop building and generator / changing house at WWTP, Jatuwa are almost completed. The Contractor has been continued all activities of WWTP.

Now the Contractor is carrying out Sump well, remaining boundary wall at WWTP from mid-December 2016. Structure work in Sump well has been revised as per site condition and work started as per revised drawing. Rip Rap stone masonry for Anaerobic & Facultative Ponds and Bio-

engineering works are in progress. Pipe system, sand & gravel packing is in progress for sludge drying bed. And the average progress of WWTP is recorded as 68.91%. High flood occurred on 12th August, 2017 by which, there were damage of compound wall, drains, gravel roads, Sump well, stone rip-rap and also sludge drying bed works at WWTP. The Contractor has been started rectification/repair works in Sludge drying bed as well as Sump well as per instruction by our expert.

5.4. ROAD AND LANES IMPROVEMENT WORKS

t) The Contractor has completed the rehabilitation / repair of existing drain of about 6.6 km in R2 road. The Contractor has completed the shifting/ relocating electric poles up to Pani Tanki both sides.

The Contractor has been completed sub-grade preparation, sub-base, base course, prime and Tack coat and asphalt concrete in R2 road up to Pani Tanki Chowk. Road works have been frequently disturbed due to the existing water supply network and house connection pipes. The Contractor has completed road works with Sub Base along the sewer lines about 39.5435 km out of 44.643 km, 88.58% till Jan, 2018.

5.5. CONSTRUCTION MATERIALS

u) The fabrication of steel moulds for precast units- manholes, sewer inlets and house connection chamber are continuing in this month also. Similarly, other item of works inside the Contractor's yard is also going on smoothly.

The Contractor has resumed to produce the precast items (drain cover slabs) at the Contractor's Camp, Katahari from end of October 2017.

5.6. CONSTRUCTION MATERIAL TESTING LAB

v) Construction material testing laboratory has been set up at the Contractor's camp at Katahari. Cube Test, Brick Compressive Strength, Cement Test is conducted in the Laboratory. Besides these tests, Aggregate Crushing Value (ACV), Flakiness Index (FI), Los Angeles Abrasion (LAA), CBR tests are also conducted.

As regular, Three Edge Bearing Test for RCC pipes of different diameter has been conducted on 20 January 2016 at Itahari in presence of Consultant (TL, CSE) and PM/PIU. And results were found satisfactory.

Now, construction material testing lab is working in full swing for testing of sub grade material, sub base material, base material, Bituminous items, concrete, brick, sand and aggregates.

5.7. PHYSICAL PROGRESS TILL January, 2018

w) Total physical progress till **Jan, 2018** is about **94.24% w.r.t vo-3**.

Table 6: PLAN vs ACTUAL PROGRESS till Jan, 2018

Secondary Towns Integrated Urban Environmental Improvement Project (STIUEIP), Biratnagar Plan Vs. Progress																
Month	**Sep-14**	**Oct-14**	**Nov-14**	**Dec-14**	**Jan-15**	**Feb-15**	**Mar-15**	**Apr-15**	**May-15**	**Jun-15**	**Jul-15**	**Aug-15**	**Sep-15**	**Oct-15**	**Nov-15**	**Dec-15**
Cumulative Planned work Rev 01 (%)	17.098	18.514	26.588	36.398	46.281	56.947	67.003	76.728	86.593	94.037	95.75	95.99	96.16	96.3	96.45	96.59
Cumulative Planned work Rev 02 (%)				14.04	20.11	28.74	37.22	44.94	51.60	57.295	59.33	60.92	60.99	61.07	64.65	71.29
Cumulative Planned work Rev 03 (%)													41.847	45.447	47.767	58.037
Cumulative Actual Achievements (%)	5.81	5.98	9.29	10.77	12.57	17.57	21.82	25.25	27.85	34.317	34.317	34.317	34.317	34.317	34.317	34.94
Progress lagging to date wrt the revised work plan rev 03 (%)		(12.53)	(17.30)	(3.27)	(7.54)	(11.17)	(15.40)	(19.69)	(23.75)	(22.98)	(22.98)	(22.98)	(7.53)	(11.13)	(13.45)	(23.09)

Secondary Towns Integrated Urban Environmental Improvement Project (STIUEIP), Biratnagar

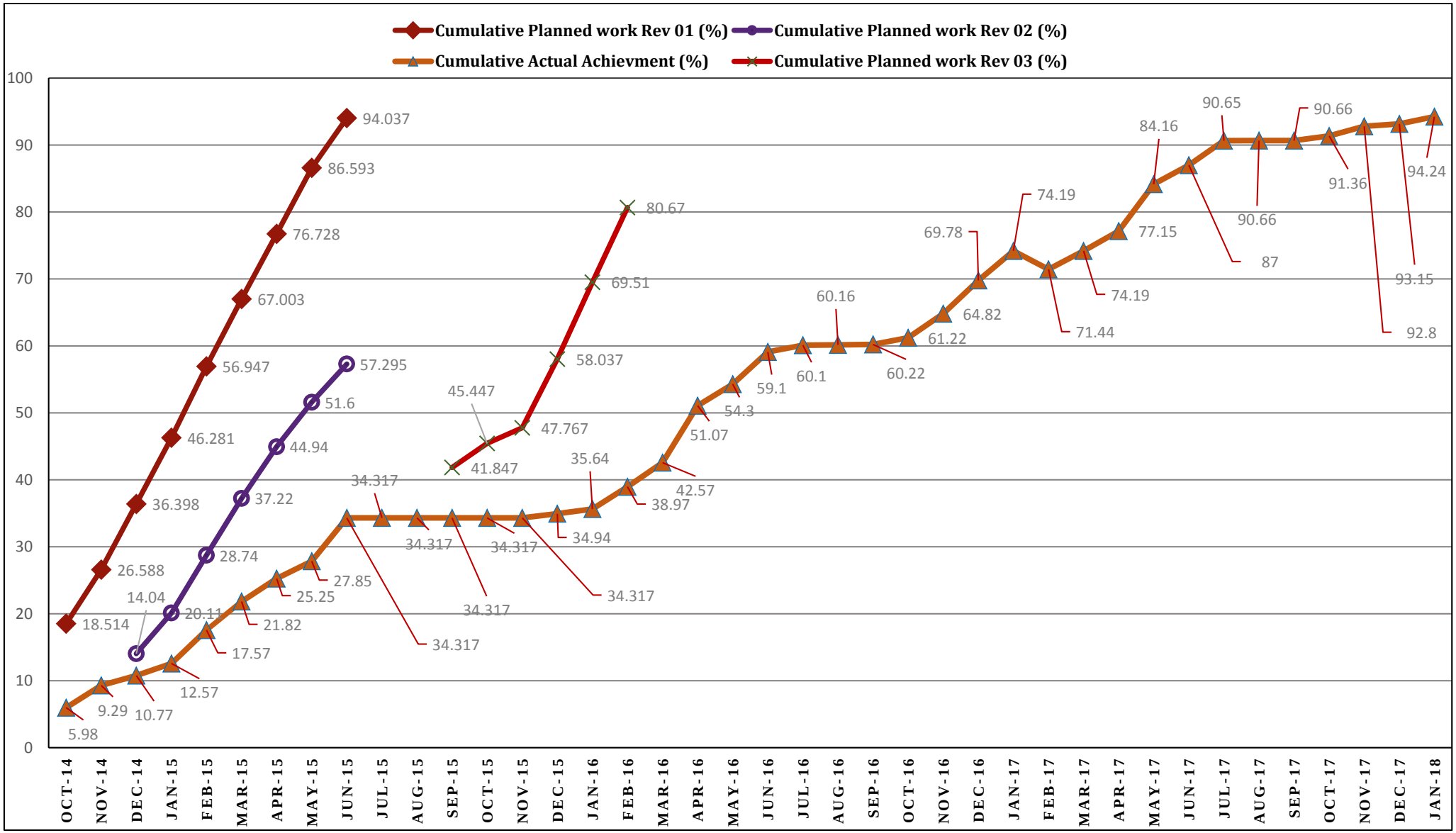
Plan Vs. Progress

Month		Jan-16	Feb-16	Mar-16	Apr-16	May-16	June-16	July-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17
Cumulative Planned work Rev 01 (%)		96.74	97.38	97.18												
Cumulative Planned work Rev 02 (%)		79.29	88.71	96.41												
Cumulative Planned work Rev 03 (%)		69.51	80.67	91.46	97.82	100.00										74.83
Cumulative Actual Achievements (%)		35.64	38.97	42.57	51.07	54.30	59.10	60.10	60.16	60.22	61.22	64.82	69.78/63.12	74.19/67.53	71.44 (wrt Vo-03)	74.19
Progress lagging to date wrt the revised work plan rev 03 (%)		(33.87)	(41.70)	48.89	46.75	45.70										(0.64)

Secondary Towns Integrated Urban Environmental Improvement Project (STIUEIP), Biratnagar

Plan Vs. Progress

Month		Apr-17	May-17	June-17	July-17	Aug-17	Sept-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Remarks
Cumulative Planned work Rev 01 (%)													
Cumulative Planned work Rev 02 (%)													
Cumulative Planned work Rev 03 (%)		83.39	93.05	99.62	100.00								
Cumulative Actual Achievements (%)		77.15	84.16	87.00	90.65	90.66	90.66	91.36	92.80	93.15	94.24		
Progress lagging to date wrt the revised work plan rev 03 (%)		(6.24)	(8.89)	(12.62)	(9.35)	(9.34)	(9.34)	(8.64)	(7.20)	(6.15)	(5.76)		


Cumulative Planned work Rev 01 (%)
Cumulative Planned work Rev 02 (%)
Cumulative Actual Achievment (%)
Cumulative Planned work Rev 03 (%)
100
90
80
70
60
50
40
30
20
10
0
94.037
86.593
76.728
67.003
56.947
46.281
36.398
26.588
18.514
57.295
51.6
44.94
37.22
28.74
20.11
14.04
80.67
69.51
58.037
47.767
45.447
41.847
34.317
34.317
34.317
34.317
34.317
34.317
27.85
25.25
21.82
17.57
12.57
10.77
9.29
5.98
35.64
34.94
38.97
42.57
51.07
54.3
59.1
60.1
60.16
60.22
61.22
64.82
69.78
74.19
71.44
74.19
77.15
84.16
87
90.65
90.66
90.66
91.36
92.8
93.15
94.24
OCT-14
NOV-14
DEC-14
JAN-15
FEB-15
MAR-15
APR-15
MAY-15
JUN-15
JUL-15
AUG-15
SEP-15
OCT-15
NOV-15
DEC-15
JAN-16
FEB-16
MAR-16
APR-16
MAY-16
JUN-16
JUL-16
AUG-16
SEP-16
OCT-16
NOV-16
DEC-16
JAN-17
FEB-17
MAR-17
APR-17
MAY-17
JUN-17
JUL-17
AUG-17
SEP-17
OCT-17
NOV-17
DEC-17
JAN-18

6. SUMMARY OF ACTIVITIES CARRIED OUT UP TO PREVIOUS MONTHS

6.1. ORGANIZATION AND STAFFING

The Project has involvement of different organization and the staffing as shown below.

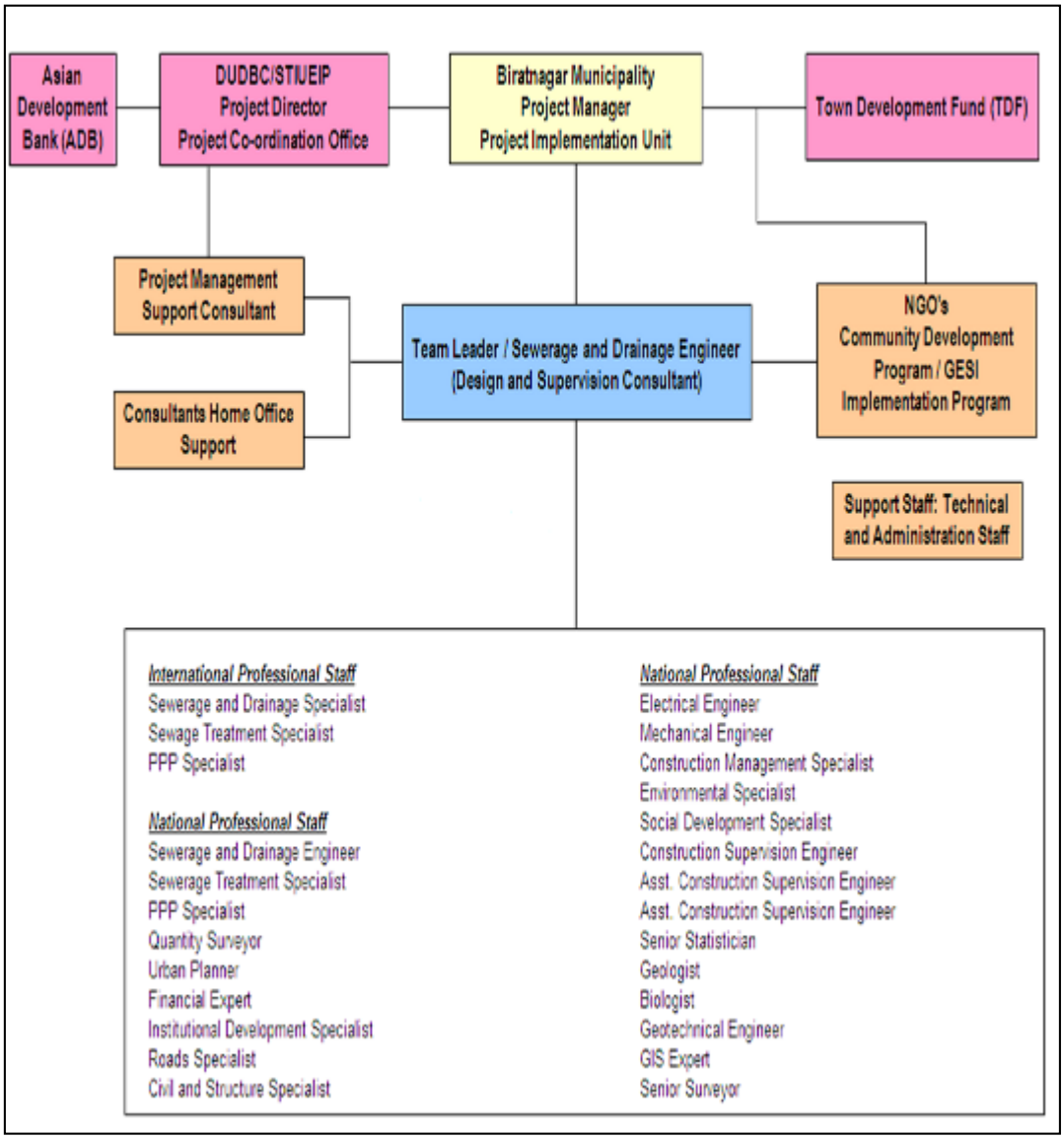


Figure 5: ORGANIZATION and STAFFING of STIUEIP, Biratnagar

6.2. INCEPTION REPORT

x) The Inception Report was prepared and submitted on 29 February, 2012.

6.3. CONCEPTUAL CATCHMENT PLAN AND DESIGN CRETERIA

y) The Conceptual Catchment Plan and Design Criteria was prepared and presented in PCO on 30 March, 2012.

6.4. SURVEY

z) The survey was completed in August, 2012.

6.5. DESIGN

aa) The design of sewer lines, storm drains, WWTPs and appurtenances and final detailed design and estimates were submitted in March 2013.

bb) During construction B2, B3 and S5 alternate design was also submitted. Similarly, CN2 and CN3 were submitted as the community request to reduce the size. The size was reviewed with 1 year return period as per the suggestion made by PMSC during field visit. Minor modifications in drawings are being carried out for considering the site condition and progress.

6.6. PRE – CONSTRUCTION ACTIVITY

cc) After successful completion of one stage two envelope bidding procedure the construction contract for STIUEIP/W/BRT/ICB-01 was signed on December 2, 2013 with M/S CTCE-Kalika JV, Baluwatar, Kathmandu.

6.7. DRAFT REPORT

dd) The construction / contract timing schedule was needed to incorporate some additional time of about 4 - 5 months to account for decision re-making process, tender award procedures.

ee) The total cost as per PPTA and earlier designs increased drastically and came to be

NRs. 7,274,465,206.69 and therefore needs curtailments and revisions had to be made as per suggestions by PIU in final report.

ff) The overall works proposed in the PPTA and the area coverage with connection was thus needed to be phased out.

6.8. FINAL REPORT

gg) The DSC submitted the Final Reports adopting cost reduction exercise by phasing out of the works. The estimated cost of the Project was reduced and kept as **NRs. 3,278,140,000.00** with a

lot of exercises in March 2013.

hh) The sharing of cost by concerned institutions is as follows

Table 7: AGENCY-WISE FINANCIAL CONTRIBUTION to BMC

Contributors	Amount(US$)	Amount (NRs.)	%
Government of Nepal (GoN)	**5,960,256.00**	**524,502,513.00**	**16.00%**
Asian Development Bank (ADB)	**24,213,539.00**	**2,130,791,460.00**	**65.00%**
Biratnagar Sub-Metropolitan City (BSMC)	**2,980,128.00**	**262,251,257.00**	**8.00%**
Town Development Fund (TDF)	**4,097,676.00**	**360,595,478.00**	**11.00%**

6.9. CONSULTANT'S ACTIVITIES IN CONSTRUCTION PHASE

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

Table 8: CONSULTANT'S STAFF at Project Site, Biratnagar

S. No	Name	Position
1	Ram Lakhan Mandal	Team Leader
2	Ganesh Gautam	Contract Management Specialist
3	Bhupal Khadka	Road Specialist
4	Jaya Prakash Yadav	Asst. Construction Supervision Engineer-1
5	Amit Kumar Gupta	Asst. Construction Supervision Engineer-2
6	Deepak Majhee	Junior Engineer-2
7	Arun Kumar Yadav	Junior Engineer-3
8	Jay Prakash Yadav	Junior Engineer-4 (Joined from 6th Sept.2017)
9	Padam Poudel	Office Manager/Computer Operator
10	Yas Kumar Magar	Driver-1 (Joined from 10th Dec, 2017)
11	Renuka Regmi	Office Assistant (Joined from 9th Nov, 2017)

jj) 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

ii. Quality control, cost control and time control

iii. Measurement and Certification of Interim Payment Certificates (IPC)

iv. Modification and design of storm drainage and sewer lines, manholes etc. as per site condition and approve working drawings

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. Meet obligation of reporting requirement – Updated Environmental Progress Report, Updated Resettlement Progress Report, Monthly Progress Report, Semi-Annual Updated Resettlement Progress Report

ix. Prepare Due Diligence Report of the Project

x. Maintain correspondences with the Employer and the Contractor

xi. Assist to PIU

6.10. KEY DATES

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

Table 9: KEY DATES of EVENTS / ACTIVITIES

S. No	Date	Activities/Events	Remarks
1		Frequent site visit by the client and the experts as required.	
2	16-17 Jan 2018	ADB, PCO, PMSC & TDF Joint mission site visit	

7. DETAILS OF ACTIVITIES CARRIED OUT IN THIS MONTH

7.1. PHYSICAL PROGRESS IN THIS MONTH

The Employer has discussed/agreed/decided to curtail (base and Asphalt) from the scope of the work except R2 stretch to meet other items which are essential for the projects. Those are as below:

some works were missed in original contract itself, some works were not foreseen in original contract, some works due to local demand etc.

Therefore, following are the physical progress with respect to variation order No-03 which has been already approved:

Table 10: PHYSICAL PROGRESS in STORM WATER DRAINS till Jan, 2018

S.N.	Location	Proposed Length in (m)	Progress		Total to Date in (m)	Progress (%)
			Up to previous month (m)	This Month in (m)		
1	B1	4003.55	3848.00	0.00	3848.00	
2	B2	3724.00	3724.00	8.60	3732.60	
3	B3	3505.02	3463.00	0.00	3463.00	
4	S5	1201.00	1201.00	0.00	1201.00	
5	S9	2933.22	2855.00	75.00	2930.00	
6	S11	1350.60	1350.60	0.00	1350.60	
7	S13	5000.21	4864.00	0.00	4864.00	
8	CN2	2197.30	2197.30	0.00	2197.30	
9	CN3	2563.77	2238.15	0.00	2238.15	
10. a	A1LINE1	600.00	621.88	0.00	621.88	
10. b	A1LINE2	600.00	496.00	108.90	604.90	
11	A1 - Lanes	-	8.80		8.80	Crossing
12	Rani	6486.70	6463.28	133.00	6596.28	
	Total	**34,165.37**	**33,331.01**	**325.50**	**33,656.51**	**98.51%**

Table 11: PHYSICAL PROGRESS in ROAD SIDE DRAINS (till Jan, 2018)

S.No	Location	Length (m)	Total Length (m)	Progress (length in meter)		Total Till Date	%age	Remarks
				Up to previous month	This Month			
1	R2	3,420.00	6,840.00	6,680.70	-	6,680.70		
2	R3	2,233.00	2,993.00	2,925.00	-	2,925.00		
3	R4	1,246.00	2,212.00	892.20	-	892.20		
4	R5	1,068.00	2,136.00	1,993.00	-	1,993.00		Satya Narayan Marga and College Road
5	R6	1,280.00	2,560.00	-	890.00	890.00		
6	R7	485.00	615.00	615.00	-	615.00		
	R7			249.00	-	249.00		
7	R8	370.00	740.00	740.00	-	740.00		As per VO 3
	R8			602.00	-	602.00		Additional work is from Ch. 0+300 to Ch. 0+560 and Plus
8	R9D	116.00	232.00	235.40	-	235.40		
9	R13	220.00	440.00	400.00	-	400.00		
10	R16	580.00	1,160.00	1,150.00	-	1,150.00		
11	R21	2,420.00	2,420.00	1,985.20	-	1,985.20		

S.No	Location	Length (m)	Total Length (m)	Progress (length in meter)		Total Till Date	%age	Remarks
				Up to previous month	This Month			
12	R22	359.00	718.00	676.00	-	676.00		
13	R24	390.00	780.00	768.00	-	768.00		
14	R25	594.00	1,188.00	1,131.10	-	1,131.10		
15	R26	620.00	1,240.00	1,258.00	-	1,258.00		
16	R27	977.00	1,954.00	1,954.00	145.00	2099.00		
17	R28	620.00	1,240.00	950.00	-	950.00		
18	R29	620.00	1,240.00	1202.80	37.20	1240.00		
19	R30	328.00	656.00	357.00	-	357.00		
20	R31	187.00	374.00	350.00	-	350.00		
21	R32	189.00	378.00	-	50.00	50.00		
22	R37	785.00	1,570.00	892.80	-	892.80		Progress is as per site condition (Ch. 0+000 to Ch. 0+420)
23	R64	120.00	120.00	121.00	-	121.00		As per measurement
24	R78	92.00	184.00	82.00	-	82.00		
25	T2L19 R	177.00	354.00	229.75	100.00	329.75		
26	T2L19 P	103.00	206.00	226.20	-	226.20		

S.No	Location	Length (m)	Total Length (m)	Progress (length in meter)		Total Till Date	%age	Remarks
				Up to previous month	This Month			
27	T2 19 U	81.00	162.00	44.20	100.00	144.20		
28	R107	157.00	314.00	288.00	-	288.00		
29	R108	96.00	192.00	192.00	-	192.00		
30	R109	90.00	360.00	355.00	-	355.00		
31	T3L26E	93.00	186.00	177.80	-	177.80		
32	T2L18O	143.00	286.00	268.00	-	268.00		Proposed Length = 280 m
33	R42	Additional Road Side Drains		271.60	-	271.60		Proposed Length = 548 m
34	R104			290.93	-	502.88		Proposed Length =120 m
35	T2L26F			110.60	-	110.60		Proposed Length = 410 m
36	R73			263.20	-	453.20		Proposed Length = 80 m
37	T3L29			80.70	-	80.70		
38	WWTP		2880.00	1671.00	263.62	1934.62		
	Total	**20,259.00**	**36,050.00**	**31,490.83**	**1585.82**	**33,076.65**	**91.752**	

Table 12: PHYSICAL PROGRESS in SEWER LINES (till Jan, 2018)

S.N.	Location	As per VO-3		Up to Previous Month		This month		Total to date		Progress % age		Remarks
		Distance	Manhole No	Distance	Manhole No	Distance	Manhole No	Distance	Manhole No	Distance	Manhole No	
1	HDPE (T1)	3,817.10	127	3819.50	125	0.00	0.00	3819.50	125			
2	HDPE (T2)	13,595.40	485	13490.65	459	0.00	0.00	13490.65	459			
3	HDPE (T3)	6,947.10	258	6890.10	247	0.00	0.00	6890.10	247			
4	HDPE (T4)	117.30	3	112.00	3	0.00	0.00	112.00	3			
5	**Sub Total (HDPE)**	**24,476.90**	**873**	**24,312.25**	**834**	**0.00**	**0.00**	**24,312.25**	**834**	**99.32**	**99.53**	
6	Hume pipe(T1)	5,026.80	144	4761.20	125	0.00	0.00	4761.20	125			
7	Hume pipe(T2)	9,488.00	276	8844.40	229	0.00	0.00	8844.40	229			
8	Hume pipe(T3)	4,493.30	136	3981.50	91	754.90	5.00	4736.40	96			
9	Hume pipe(T4)	183.50	5	185.00	5	0.00	0.00	185.00	5			
10	**Sub Total (Hume pipe) =**	**19,191.60**	**561**	**17,772.10**	**450**	**754.90**	**5.00**	**18,527.00**	**455**	**96.537**	**81.10**	
11	**Total (HDPE + Hum pipe) =**	**43,668.50**	**1434**	**42,084.35**	**1284**	**754.90**	**5.00**	**42,839.25**	**1289**	**98.101**	**89.89**	

Table 13: PHYSICAL PROGRESS in MANHOLES, SEWER INLETS & HOUSE CONNECTION CHAMBER (till Jan, 2018)

S.N.	Description	Proposed Quantity (no.)	Up to Previous Month	This Month	Total to Date	Progress (%)
1	Sewer inlet	2924.00	1911.00	47.00	1958.00	66.96
2	House connection chamber	4500.00	1803.00	201.00	2004.00	44.53

Table 14: PHYSICAL PROGRESS in ROADS & LANES (till Jan, 2018)

SN	Road Name / Location	Proposed length (m)	Progress length in (m)		Total to date	Progress %age
			Previous month	this month		
1	R2	3,050.00	3,044.00	-	3,044.00	
2	R2	130.00	130.00	-	130.00	
2	R2	50.00	50.00	-	50.00	
3	R2	177.00	166.00	-	166.00	
4	R3	2,233.00	2,233.00	-	2,233.00	
5	R4	2,163.00	1,218.00	-	1,218.00	
6	R5	370.00	370.00	-	370.00	
7	R5	600.00	604.00	-	604.00	
8	R6	460.00	460.00	-	460.00	
10	R6	820.00	-	-	-	
11	R6	539.00	-	-	-	
12	R7	624.00	407.00 -	-	407.00 -	
13	R7	190.00	187.00	-	187.00	

SN	Road Name / Location	Proposed length (m)	Progress length in (m)		Total to date	Progress %age
			Previous month	this month		
14	R7	95.00	95.00	-	95.00	
15	R7	414.00	414.00	-	414.00	
16	R8	600.00	670.00	-	670.00	
17	R8	355.00	355.00	-	355.00	
18	R8	427.00	427.00	-	427.00	
20	R9	116.00	107.00 -	-	107.00	
21	R9	210.00	220.00	-	220.00	
22	R9	123.00	117.00	-	117.00	
23	R9	116.00	116.00	-	116.00	
24	R9	84.00	84.00	-	84.00	
25	R10	120.00	120.00	-	120.00	
26	R10	180.00	185.00	-	185.00	
27	R10	320.00	320.00	-	320.00	
28	R10	220.00	220.00	-	220.00	
29	R10	182.00	172.00	-	172.00	
30	R11	160.00	160.00	-	160.00	
31	R11	205.00	205.00	-	205.00	
32	R12	140.00	140.00	-	140.00	
33	R12	280.00	280.00	-	280.00	
34	R12	680.00	480.00	-	480.00	
35	R12	340.00	340.00	-	340.00	
36	R13	220.00	220.00	-	220.00	
37	R13	224.00	224.00	-	224.00	
38	R14	261.00	256.00	-	256.00	
39	R15	210.00	210.00	-	210.00	
40	R16	40.00		-	-	

SN	Road Name / Location	Proposed length (m)	Progress length in (m)		Total to date	Progress %age
			Previous month	this month		
41	R16	540.00	540.00	-	540.00	
42	R16	215.00	221.00	-	221.00	
43	R17	375.00	375.00	-	375.00	
44	R17	222.00	225.00	-	225.00	
45	R18	464.00	464.00	-	464.00	
46	R19	236.00	232.00	-	232.00	
47	R20	108.00	108.00	-	108.00	
48	R21	600.00	600.00	-	600.00	
49	R21	140.00	140.00	-	140.00	
50	R21	580.00	580.00	-	580.00	
51	R22	358.00	358.00	-	358.00	
52	R23	226.00	223.00	-	223.00	
53	R24	384.00	384.00	-	384.00	
54	R25	599.00	594.00	-	594.00	
55	R26	617.00	617.00	-	617.00	
56	R26	244.00	244.00	-	244.00	
57	R27	810.00	810.00	-	810.00	
58	R27	177.00	183.00 -	-	183.00	
59	R28	635.00	635.00	-	635.00	
60	R28	158.00	158.00	-	158.00	
61	R29	620.00	477.00	-	477.00	
62	R29	263.00	257.00	-	257.00	
63	R30	212.00	212.00	-	212.00	
64	R31	187.00	187.00	-	187.00	
65	R32	190.00	190.00	-	190.00	

SN	Road Name / Location	Proposed length (m)	Progress length in (m)		Total to date	Progress %age
			Previous month	this month		
66	R33	285.00	285.00	-	285.00	
67	R34	160.00	161.00	-	161.00	
68	R35	160.00	160.00	-	160.00	
69	R36	218.00	220.00	-	220.00	
70	R37	220.00	226.00	-	226.00	
71	R37	200.00	200.00	-	200.00	
72	R38	120.00	120.00	-	120.00	
74	R40	332.00	200.00	-	200.00	
76	R42	218.00	218.00	-	218.00	
77	R64	121.00	121.00	-	121.00	
78	R65	282.00	282.00	-	282.00	
79	R71	100.00	100.00	-	100.00	
81	R73	220.00		-	-	
83	R75	136.00	136.00	-	136.00	
84	R76	272.00	273.00	-	273.00	
85	R77	97.00		-	-	
86	R78	92.00	93.00	-	93.00	
87	R82	280.00	280.00	-	280.00	
88	R82	114.00	114.00	-	114.00	
89	R83	369.00	369.00	-	369.00	
90	R84	120.00	120.00	-	120.00	

SN	Road Name / Location	Proposed length (m)	Progress length in (m)		Total to date	Progress %age
			Previous month	this month		
91	R86	60.00	60.00	-	60.00	
92	R86	140.00	140.00	-	140.00	
93	R90	320.00	316.00	-	316.00	
94	R91	180.00	180.00	-	180.00	
95	R102	62.00	72.00	-	72.00	
96	R103	173.00	147.00	-	147.00	
97	R104	273.00	276.00	-	276.00	
98	R105	168.00	65.00	-	65.00	
101	R107	167.00	185.00	-	185.00	
102	R108	97.00	36.00	-	36.00	
103	R109	200.00		-	-	
104	R110	252.00	245.00	-	245.00	
105	R111	191.00	191.00	-	191.00	
106	R112	216.00	216.00	-	216.00	
107	R114	320.00	326.00	-	326.00	
108	R121	121.00	121.00	-	121.00	
109	R122	280.00	280.00	-	280.00	
110	T3 Line 23C	145.00	145.00	-	145.00	
111	T3 Line 23	58.00	55.00	-	55.00	
112	T3 Line 24A	63.00	63.00	-	63.00	

SN	Road Name / Location	Proposed length (m)	Progress length in (m)		Total to date	Progress %age
			Previous month	this month		
113	T3 Line 24B	81.00	77.00	-	77.00	
114	T3 Line 24	33.00	33.00	-	33.00	
115	T3 Line 25A	133.00	123.00	-	123.00	
116	T3 Line 25 B	194.00	188.00	-	188.00	
117	T3 Line 25C	148.00	140.00	-	140.00	
118	T3 Line 25	52.00	52.00	-	52.00	
119	T3 line 27	61.00	50.00	-	50.00	
120	T3 Line 26 E	96.00	90.00	-	90.00	
121	T3 Line 26	128.00	126.00	-	126.00	
122	T3 Line 29	87.00	90.00	-	90.00	
123	T3 Line 30	205.00	205.00	-	205.00	
124	T3 line 31A	177.00	170.00	-	170.00	
125	T3 Line 32	235.00	231.00	-	231.00	
126	T3 Line 33B	170.00	164.00	-	164.00	
127	T3 Line 33A	134.00	134.00	-	134.00	
128	T2 Line 20	320.00	320.00	-	320.00	
129	T2 Line 19	225.00	225.00	-	225.00	
130	T2 Line 18Y	119.00	119.00	-	119.00	
131	T2 line 19S	100.00	100.00	-	100.00	
132	T2 Line 19 o	71.00	71.00	-	71.00	
134	T2 line 18X	154.00	154.00	-	154.00	
135	T2 Line 18O	143.00	143.00	-	143.00	
138	T2 Line 19	153.00	153.00	-	153.00	
140	T2 Line 19W	56.00	56.00	-	56.00	
141	T2 Line 19V	93.00	82.00	-	82.00	
142	T2 Line 19V	138.00	138.00	-	138.00	

SN	Road Name / Location	Proposed length (m)	Progress length in (m)		Total to date	Progress %age
			Previous month	this month		
143	T2 line 19X	56.00	57.00	-	57.00	
144	T2 line 19Z	48.00	61.00	-	61.00	
145	T2 Line 19Y	106.00	109.00	-	109.00	
146	T2 line 19P	107.00	109.00	-	109.00	
148	Bindabasini Marga T2Line19 R,P,Q	350.00	350.00	-	350.00	
150	T2 line 19N	160.00	165.00	-	165.00	
151	T2 Line 19K	205.00	96.00	-	96.00	
155	T3 Line 12	54.00		-	-	
158	T3 Line 13C	285.00	285.00	-	285.00	
159	T2 line 19G	63.00		-	-	
160	T2 line 19H	90.00	70.00	-	70.00	
164	T2 Line 19C	50.00	66.00	-	66.00	
165	T2 Line 19B	134.00	138.00	-	138.00	
168	T3 Line 11A	142.00	137.50	-	137.50	
171	T3 Line 11F	67.00	67.00	-	67.00	
176	T2 Line 26 F	68.00	68.00	-	68.00	
177	T1 Line 16A	140.00	140.00	-	140.00	
178	T1 Line 16C	200.00	200.00	-	200.00	
179	T1 line 17	86.00	86.00	-	86.00	
180	T1 Line 17	82.00	82.00	-	82.00	
181	T1 Line 17A	96.00	96.00	-	96.00	
182	T1 Line 16 B	205.00	205.00	-	205.00	

SN	Road Name / Location	Proposed length (m)	Progress length in (m)		Total to date	Progress %age
			Previous month	this month		
183	T1 Line 15	224.00	224.00	-	224.00	
184	T1 Line 14	60.00	60.00	-	60.00	
187	T1 Line 13	165.00	165.00	-	165.00	
188	T1 Line 17	115.00		-	-	
189	T1 Line 17C	97.00		-	-	
192	T2 Line 19H	80.00	80.00	-	80.00	
193	T1 Line 5	290.00	290.00	-	290.00	
194	T1 Line 12	140.00	140.00	-	140.00	
202	S13 (Storm Line)	203.00	203.00	-	203.00	
203		389.00	-	-	-	
204	WWTP	1,440.00	800.00	-	800.00	
205	WWTP	750.00	640.00	-	640.00	
Total		**44,643.00**	**39,543.50**	**0.00**	**39,543.50**	**88.58**

Table 15: PHYSICAL PROGRESS in WASTE WATER TREATMENT PLANT (WWTP), JATUWA till Jan, 2018

Physical Progress till Jan, 2018								
S.N.	Description	Proposed Quantity as per VO-03	unit	Progress		Total to Date	Progress in %age	Remarks
				Up to Previous month	This Month			
1	Anaerobic Pond	3.00	Nos.	3.00	0.00	3.00	100.00	
2	Facultative Pond	3.00	Nos.	2.69	0.23	2.92	97.33	
3	River Training Work	600.00	m	600.00	0.00	600.00	100.00	Additional gabion work to protect the boundary wall at River side face : in progress
4	Boundary Wall	1330.00	m	1283.00	0.00	1283.00	96.46	
5	Office cum Lab Building	1.00	Nos.	1.00	0.00	1.00	100.00	
6	Workshop Building	1.00	Nos.	1.00	0.00	1.00	100.00	
7	Generator / Changing House	1.00	Nos.	1.00	0.00	1.00	100.00	
8	Sump Well	1.00	Nos.	0.65	0.04	0.69	69.00	
9	Sludge Drying Bed	1.00	Nos.	0.92	0.02	0.94	94.00	
10	Bio-engineering	1.00	Job	0.50	0.00	0.50	50.00	
10	Road Side Drain	2880.00	M	1671.00	0.00	1671.00	58.02	

Physical Progress till Jan, 2018								
S.N.	Description	Proposed Quantity as per VO-03	unit	Progress		Total to Date	Progress in %age	Remarks
				Up to Previous month	This Month			
11	Guard House	1.00	Nos.	0.90	0.00	0.90	90.00	**Average Progress – 68.91%**

Table 16: PHYSICAL PROGRESS in PRODUCTION OF PRECAST ITEMS at KATAHARI till Jan, 2018

Physical Progress till Jan, 2018						
S.N.	Description	Unit	Progress		Total to Date (nos.)	Remarks
			Up to Previous month (nos.)	This Month (nos.)		
1	Precast Slab	No	126,713.00	2000.00	128,713.00	
2	Precuts	No	11,209.00	0	11,209.00	
3	Kerb Stone	No	23,135.00	0	23,135.00	
4	Manhole	No	2,200.00	0	2,200.00	
5	Sewer Inlet	No	2,524.00	0	2,524.00	
6	House Connection Chamber	No	2,287.00	0	2,287.00	

Table 17: PHYSICAL PROGRESS in PRODUCTION OF RCC PIPES at ITAHARI till Jan, 2018

Physical Progress till Jan, 2018						
S.N.	Description	Diameter (mm)	Progress		Total to Date (nos.)	Remarks
			Up to Previous month (nos.)	This Month (nos.)		
1	RCC Pipe	200	2,123	0	2,123	
2	RCC Pipe	300	508	20	508	
3	RCC Pipe	350	216	0	216	
4	RCC Pipe	400	430	0	430	
5	RCC Pipe	450	84	0	84	
6	RCC Pipe	500	551	0	551	
7	RCC Pipe	600	963	0	963	
8	RCC Pipe	700	1,296	0	1,296	
9	RCC Pipe	900	278	0	278	
10	RCC Pipe	1000	1,011	0	1,011	
11	RCC Pipe	1600	373	0	373	
	Total		**7,833**	**20.00**	**7,853**	

8. CONTRACTOR'S MANPOWER

Table 18: CONTRACTOR'S KEY STAFFS in Jan, 2018

DESIGNATION	NO	REMARKS
Project / Contract Manager	1	
Planning Engineer/Construction Engineer	1	
Construction Engineer	1	
Site Engineers	2	
Quality Control Manager	1	
Office/Bill Engineer	0	
Junior Engineer	2	
Sub Overseers	2	
Safety Manager / Senior Site Supervisor	1	
Accountant / Office Manager	1	
Lab Assistant	2	
Store Keeper	3	
Light Drivers	4	
Machine Operator	4	
Site Supervisor	2	
Other Supporting Staff	10	
Skilled Labor at Site	>30	
Unskilled Labor at Site	>50	

9. CONTRACTOR'S EQUIPMENT

Table 19: CONTRACTOR'S EQUIPMENT at JUDI CAMP

EQUIPMENT	NO	REMARKS
Excavator	6	
Back Hoe JCB	9	
Grader	2	
Crane / Teller	1	
Water Tanker	3	
Tractor	6	
Tipper	4	
Light Vehicle	4	
Motorbike	10	
Kerb Stone Machine Set	1	
Generator	4	
Welding Machine	3	
Diesel Tank with Pump	1	
Stand Drill Machine	1	
Gas Cutter Set	1	
Pipe Cutter	1	
Hand Grinder	1	
Plate Compactor	2	
Monkey Jumper	1	
Concrete Batching Plant	1	
Electric Vibrator	3	
Bar Bending Machine	3	
Bar Cutter Machine	3	
Transit Mixer	0	
Concrete Mixer (Hydraulic)	2	
Concrete Mixer (Manual)	2	
Asphalt Concrete Plant	1	
Asphalt Paver Machine	1	

10. DETAILS OF SAFEGUARD ACTIVITIES (SOCIAL, ENVIRONMENTAL AND RESETTLEMENT ACTIVITIES AND ISSUES)

10.1. SOCIAL ISSUES

OPERATION GUIDELINES FOR COMMUNITY MOBILIZATION AND IMPLEMENTATION OF CDP

- **VISIT, INTERACTION AND CONSULTATION WITH COMMUNITY PEOPLE**

kk) Social Development Specialist (SDS) of the DSC is closely monitoring the social issues resulted due to the project activities. Visiting and interacting with people, Tole Lane Organizations (TLOs) and formal and informal consultation meetings are going on in this regard.

The project is regularly disseminating the information and message to community people about the project features, its purpose, methods of use and functionality of infrastructure under construction

by the project through such consultation meetings. These meetings are fruitful to provide prior information regarding the project construction activities before execution at the community level. It is an appropriate platform to interact and make dialogue among 4 Cs (The Client, Consultant, Contractor and Community) about the project features, prime objectives, purpose, work methodology and potential threats/ cautions to be adopted during the project implementation.

The visits, meetings and consultations with community people at TLOs have provided many opportunities to obtain people's views and perception towards the project. Community people of those particular localities used to discuss extensively in the project features and have been provided some suggestions for efficient carryover of the project components and assured cooperation and coordination in the project execution in their localities.

Social Development Specialist (SDS) / DSC along with PIU, NGO staffs have been actively participated in the meetings. SDS/DSC as usual facilitate the consultation meetings, support to prepare meeting minutes and obtain decisions.

Apart from this, many field visits and observations with community are also important to disseminate project message and monitor project features in the community. Monitoring visits along with Project Manager (PM) and TL/DSC to the core project area, community development program area and construction sites have been beneficial to make insight to the project progress, its effectiveness and challenges.

- **SAFEGUARD DESK**

ll) A Safeguard Desk established in the project has been effective in planning, monitoring and follow up of all social development/ safeguard issues including the resettlement plan. It has been started as a functional mechanism consisting of PIU, NGO and DSC for this purpose. The desk consists of the Social Development Chief of PIU, Team Leader of CDP/ NGO and SDS of DSC with close consultation and guidance of PM/ PIU. It is in compliance with the Aide Memoire of last ADB Mission (21 April - 12 May 2014). It is decided that the desk will review, update and discuss the progress, issues, constraints and challenges of social aspects, Community Development Program and implementation of resettlement plan as well as monitoring of social development activities.

- **ToT on Gender and Social Inclusion (GESI) Mainstreaming**

mm) The project has been envisaged a 'Training of Trainers (ToT) on GESI Mainstreaming' for Biratnagar Sub Metropolitan City (BSMC) Office and STIUEIP project staff. The Aide Memoir Report of the ADB Review Mission has also noted about the training to be conducted in Biratnagar for the staff of municipality and related agencies. The Mission has recommended for conducting GESI training relating to urban infrastructure development to staff of municipality, municipal steering committee, PlU, local stakeholder agency and make them accountable for the better results. In line with this, the project is going to conduct Gender and Social Inclusion (GESI) Sensitization Training when it is approved. The revised ToT has been submitted to PIU, STIUEIP, Biratnagar incorporating the comments from PMSC and PCO.

Safeguard desk members discussed and reviewed the proposed 'ToT on GESI Mainstreaming' proposal. Social Development Specialist (SDS) of DSC has reviewed the detail proposal and adjusted budget accordingly for the 'Training of Trainers (ToT)' model. The training arrangement will be decided after the approval of this proposal by the project authority. Primarily it will be a 5 days training focusing mainly on Gender and Social Inclusion Action Plan (GESIAP) comprising other project elements. About 35 participants from Biratnagar Metropolitan City (BMC) office and project staffs will participate in the training.

- **Update of Small Facilities Construction and other Activities in CDP/STIUEIP**

nn) The latest safeguard desk meeting has reviewed all ongoing and completed small facilities infrastructure and other activities implemented under the Community Development Program (CDP), a component of STIUEIP. It provided a common understanding and status information of infrastructures and activities under the CDP program to all safeguard desk members.

A glimpse of community development program has been obtained by the presentation in the appraisal and interaction meeting. Total 7,417.36 m. roads and 13,246.32 m drains are under construction through small facilities infrastructure by CDP/STIUEIP. Regarding on the household toilet, total 458 nos. such toilets has been built by May 2015. Similarly, 10 hand pumps have been installed, 45 hands pump platforms built and 5 public toilets are complete.

- **Employment in Project**

oo) The core activities of the project i.e. sewerage pipe laying, drain construction and road/ lane improvement provided employment to about 270 in a day this month. The employed human resources varied from skilled engineer/ project manager to general labor, supervisor, (sub) overseers and mechanics. However, a very few women (16%) are working in the construction activities as skilled and unskilled labor but they are paid equal to men for similar type of work. Three women Assistant Sub-Engineers are also working at construction sites after completing OJT (on the job training) successfully at the same sites from different CTEVT affiliated institutes of nearby districts. The contractor has been suggested to increase the work opportunity to women in different types of works.

- **General**

pp) Sewer/ Drainage lines are being laid in the public rights of way (RoW). During construction, if any trees or crops or structures demolished, it shall be properly addressed with compensation. Private individuals or shopkeepers will also be looked into if their livelihood is affected by the disturbance during constructions/ pipe laying works. Apart from this, the project did not encounter any resettlement or re-location and any compensation issue.

11. KEY ISSUES AND REMARKS / REASON FOR DEVIATION (IF ANY) AFFECTING PROGRESS

qq) Following are the key issues affected in progress:

- Disturbance due to underneath existing water supply pipe lines network, under-ground cables, electric poles etc.
- Settlement at various stretches due to heavy rain falls (monsoon) and high flood.
- Insufficient manpower's and materials at site.
- Delay in approval of estimate of dedicated electricity supply to WWTP, Jatuwa.
- Sump well, bottom plug work's defective portion repairing work.
- House connection and sewer inlet affecting due to issue from local stakeholder.
- Due to design changed at R6 Lane on demand of local stakeholder.

12. WORK PLAN FOR THE NEXT MONTH

rr) Following are the Contractor's works in the next month **(Please refer to the contractor's progress report for quantitative plan works for next month)** the revised work program for remaining works after Variation order no-03 as discussed/agreed between three parties - 3C.

- Remaining/outstanding Road Works.
- Repair and maintenance and outstanding work of Sewer line construction.
- Maintenance work in different lanes as per instruction /or/ required as per site condition.
- Remaining/outstanding road side drain construction and repairing.
- Remaining works at WWTP, especially Sump well work and related components.
- Dedicated electricity supply to WWTP, Jatuwa.
- Laying of new line and repairing of water supply pipe lines.

ANNEX-1: Photographs of January, 2018

A view of Sump Well at WWTP after bottom plug sealing

A view of WWTP after bottom plug concreting

A view of B2 brick storm drain work

A view of A1 ongoing storm drain work

ANNEX-2: Minutes of Meeting, January 2018

MINUTES OF MEETING

Contract: Secondary Town Integrated Urban Environment Improvement Project; Contract No. STIUEIP /W/BRT/ICB-01

Date : 02 Jan 2018
Time : 3:00 PM
Venue : Contractor's Camp at Judi, Biratnagar

Attendance

1	Mr. Bhim Parajuli	Mayor, BMC
2	Mr. Pradeep Kumar Niraula	Chief Administrative Officer, BMC
3	Mr. Bharat Kumar Nuepane	Project Manager, STIUEIP, PIU
4	Mr. Prakash Narayan Chaudhary	Project Engineer, STIUEIP, PIU
5	Mr. Ghanendra Katuwal	Project Engineer, STIUEIP, PIU
6	Mr. Poonam Kumar Dahal	S.D.O., STIUEIP, PIU
7	Mr. Ram Lakhan Mandal	Team Leader, STIUEIP, DSC
8	Mr. Jaya Prakash Yadav	ACSE, STIUEIP, DSC
9	Mr. Amit Kumar Gupta	ACSE, STIUEIP, DSC
10	Mr. Ujjwal Prasai	Project Manager, CTCE-Kalika
11	Mr. Mahesh Subedi	Engineer, CTCE-Kalika

The meeting was chaired by Mr. Bhim Parajuli, Mayor. He welcomed all participants and Mr Prasai presented the slides of presentation prepared jointly by the DSC and CTCE-Kalika. Following matters were discussed and decided:

Minutes are:

1. Mr. Prasai briefed about the present progress status of the project and requested for quick disburse of previous payments. Mayor, assured to arrange for the disbursement in few days.

   The progresses have been reported as follows:
   Physical progress – 93.13 % wrt VO-03 (as of end of December 2017)
   Financial progress –89.74%

   PM, Mr. Neupane emphasized about cleaning and rectification of invert and top level of sewer lines & drainage system so that the system meets their purpose without any hindrances. Mr Prasai ensured and agreed to clean all the blocked portion of the system if required they'll arrange suitable machineries & equipments similarly they do the rectification work too on time.

2. It was decided to extend A1 line up to Aietbare chowk (about 220m in total length both sides), brick drain from Ganesh chowk to RCC box drain at B2 line (about 800m in length one side), to extend RCC storm drain at S11 line from Kanchan marg towards north (about 875m in length) and to construct drain of new line S7 from outlet /or/ some of them with the surplus amount after completing all works incorporated in VO-3 which may be about One Hundred Forty Million. The Contractor agreed to do above mentioned additional works after getting instruction from the Engineer.

3. As per local stakeholder demand to widen R6 Line's road width (Shahi Marg) and on consent of 3 parties, it was decided to construct RCC drain instead of brick work drain and decided to put the sewer inlet inside the road. The Contractor has also agreed to replace this drain section if electric pole shifting works made easier by NEA and some more time asked by the contractor beyond completion date. Mayor assured to cooperate in these matters.

4. As per the PM, Mr Neupane suggestion, it is decided to complete the backfilling work in S9 line within BoQ quantity.

5. The contractor was instructed to accelerate and complete sewer manholes, sewer inlets and house connection chambers work properly on time, as the progress is observed very slow.

6. Mr. Prasai asked about the delay in dedicated electricity line for WWTP due to which the work progress is suffering. Mr. Parajuli assured that now the NEA will cooperate as agreed by them, so the contractor needs to propose the shutdown schedule to NEA without any delay.

And as inquired by the contractor on claim of the surplus quantity of pipe and precast element available at the contractor's yard. Mayor, Mr. Prajuli instructed to PM, Mr Nuepane to solve the dispute as per contract.

7. Mr. Prasai informed that public are damaging the manholes in the Koshi Highway to drain off the surface water along with garbage through sewer line which may lead to failure of the sewer system.

Mr. Parajuli stated that we must be careful about the upcoming problem during operation of sewer system and asked opinion from the DSC.

It was also discussed to purchase some additional equipment like cutter, etc. required for operation & Maintenance of the project as per the manual prepared by Mr Daniel, O & M expert after taking consent from ADB.

8. Mr. Prasai again requested for Taking - Over of the completed lines / works as more than 93% physical work has been completed and also emphasized that RUDP has already started physical works at some stretches without handing over by them to the client. Thus to overcome from any duplication, it was decided to start Handing/Taking over process of the completed lines / works as soon as possible, as per the Contract.

9. As the works at WWTP site is becoming slower so the contractor was instructed to complete all the components of WWTP as soon as possible including Sump well works which is very essential to success the project.

10. It was decided that not to do any further works at plotting land like lane R108 & R109, etc.

Note :- Please reges these letter no:- SBS claim 2nd dated 20 July 2016, SBS 242 dated 25 May 2017, 071-72 408 (Sik) dated 10 July 2016. Regarding minutes point (decision) no 1 (one) paragraph 3 (three).

ANNEX-3: Laboratory Test Results of January, 2018

SECONDARY TOWNS INTEGRATED URBAN ENVIRONMENTAL IMPROVEMENT PROJECT

BIRATNAGAR SUB-METROPOLITAN City

STIUEIP

Monthly Laboratory Testing Report

(For The Month of JANUARY 2018)

Consultants:SMEC-Brisbane-AQUA-CEMAT-BDA

Contractors: CTCE- KALIKA J/V

S. No.	Description of Material	Type of test	Total No. of Test upto previous month	Test Performed for this month				Total No. of Test upto This month	Remarks
				No. of Tests	Passed	Failed	Retest Recommended		
1	Granular Material/Gravel material	Sieve analysis	90	0	0	0		90	
2	SUB GRADE Preparation	MDD & OMC	100	0	0	0		100	
	asPere Specifacation	Field density	779	0	0	0		779	
		C.B.R	100	0	0	0		100	
3	BRICK WORK	Water Absorption	445	0	0	0		445	
	Required Test	Compressive Strength	3391	50	50	0		3441	
4	Masonry Mortar (CM 7.05)	Compressive strength	4759	0	0	0		4759	
5	CONCRETE AGGREGATE					0			
	Coarse aggregate (20 mm)	Sieve analysis (20 mm)	451	13	13	0		464	
		LAA	343	13	13	0		356	
		Specific Gravity	16	1	1	0		17	
		FI	342	13	13	0		355	
		ACV	390	13	13	0		403	
	Fine aggregate (Sand)	Sieve analysis	518	12	12	0		530	
6	CONCRETE MIX DESIGN	Concrete mix Design	77	0	0	0		77	
	ConcreteM15/20,M20/20	Compressive strength	471	0	0	0		471	
	M25/20,&M30/20	Slump test	75	0	0	0		75	

SECONDARY TOWNS INTEGRATED URBAN ENVIRONMENTAL IMPROVEMENT PROJECT

BIRATNAGAR Sub-Metropolitant City — **STIUEIP**

Monthly Laboratory Testing Report

(For The Month Of JANUARY 2018)

Consultants:SMEC-Brisbane-AQUA-CEMAT-BDA — **Contractors: CTCE- KALIKA J/V**

S. No.	Description of Material	Type of test	Total No. of Test upto previous month	Test Performed for this month				Total No. of Test upto This month	Remarks
				No. of Tests	Passed	Failed	Retest Recommended		
7	CEMENT Required Test								
8	OPC Cement	Setting time	414	10	10	0		424	
		Normal Consistency	414	10	10	0		424	
	CONCRETE								
	Work Mix Test M15,M20,M25,M30	Compressive strength	14979	60	60	0		15039	
9	REINFORCEMENT	Required Test							
	Reinforcement tore steel	As per Specifacation	80	1	1	0		81	
10	PAVEMENT MATERIALS								
	Sub Base Materials	Sieve analysis	313	0	0	0		313	
		MDD & OMC	63	0	0	0		63	
		CBR	69	0	0	0		69	
		Field density	493	0	0	0		493	
11	CS Base	Sieve analysis	142	0	0	0		142	
	Crushed Stone Base	MDD & OMC	14	0	0	0		14	
	Material Laying	C.B.R	35	0	0	0		35	
		FI & C.Ratio	136	0	0	0		136	
		LAA	122	0	0	0		122	
		SSS	64	0	0	0		64	
		AIV	136	0	0	0		136	
		Field Density & OMC	197	0	0	0		197	

SECONDARY TOWNS INTEGRATED URBAN ENVIRONMENTAL IMPROVEMENT PROJECT

BIRATNAGAR Sub-Metropolitant City

STIUEIP

Monthly Laboratory Testing Report

(For The Month Of-JANUARY 2018)

Consultants:SMEC-Brisbane-AQUA-CEMAT-BDA

Contractors: CTCE- KALIKA J/V

S. No.	Description of Material	Type of test	Total No. of Test upto previous month	Test Performed for this month				Total No. of Test upto This month	Remarks
				No. of Tests	Passed	Failed	Retest Recommended		
12	ASHPHALT CONCRETE	Sieve analysis	39	0	0	0		39	
	Combine Mixed	FI	24	0	0	0		24	
		ACV	24	0	0	0		24	
	Individual Ca&FA Test Mix Design	LAA	24	0	0	0		24	
		Sp gravity	4	0	0	0		4	
		S.S.S	39	4	4	0		43	
13	BITUMEN TEST	Penetration at25.c	3	1	1	0		4	
	80/100 Bitumen	Softeing point(ring ball)	3	1	1	0		4	
	As per DORbook section	Flash point/Fire Point	3	1	1	0		4	
	600 Table 6.14/is 73	Ductility at25.c	3	1	1	0		4	
		Specific at 25.c	3	1	1	0		4	
		Water Content	3	1	1	0		4	
		Loss on Heating for 5 hrs	3	1	1	0		4	
		Pen-of residue afte loss on Heating	3	1	1	0		4	
		Solubility in tricloroethylene	3	1	1	0		4	
14	Humpipe Test	Three Edge Bearing Load Test	7	0	0	0		7	200mm to 1600mm 1 each
15	MARSHALL MIX DESIGN	WEARING COURSE	1	1	1	0		2	
16	Marshall Stability Test	Bulk density	102	6	6	0		108	
		Stability	102	6	6	0		108	
		Flow	102	6	6	0		108	
		Air voides	102	6	6	0		108	

SECONDARY TOWNS INTEGRATED URBAN ENVIRONMENTAL IMPROVEMENT PROJECT

BIRATNAGAR Sub-Metropolitant City

Monthly Laboratory Testing Report

STIUEIP

(For The Month OF JANUARY 2018)

Consultants:SMEC-Brisbane-AQUA-CEMAT-BDA **Contractors: CTCE- KALIKA J/V**

S. No.	Description of Material	Type of test	Total No. of Test upto previous month	Test Performed for this month				Total No. of Test upto This month	Remarks
				No. of Tests	Passed	Failed	Retest Recommended		
		Bitumen extraction	36	2	2	0		38	
		Voids in Mineral Agg	102	6	6	0		108	
		Job mix in AC Plant	64	6	6	0		70	
17	BITUMEN SPREAD TEST								
	Prime coat	Application rate	51	6	6	0		57	
	Tack coat	Application rate	38	6	6	0		44	
18	Machines/Equipment								
	Caliberation of compressive Testing machine	1000KN Manuall	3	0	0	0		2	
		500 KN Manuall	3	0	0	0		2	
	C.B.R Machine	50KN/30KN	2	0	0	0		2	
	Marshall Stability Machine	50KN/25KN	2	0	0	0		2	
19	MISCELLANEOUS								
	G.I Wire(Gabion Boxes)		5	0	0	0		5	
	Factory Test Report of Cement		8	1	1	0		8	
	Factory Test Report of Iron Steel		34	1	1	0		35	
	Factory Test Report of 80/100 Bitumen		2	0	0	0		2	
	Factory Test Report of UPVC/HDP Pipe		2	0	0	0		2	
	UPVC/HDP Pipe Test Result		2	0	0	0		2	
	Admixture & Carbon steel Fiber		1	2	2	0		3	

MDD/OMC = Max Dry Dennsity
Optimum Moisture Content
SSS = Sodium Sulphate Soundness
ACV = Aggregtae Crushing Value
CBR=California Bearing Ratio

LAA = Los Angeles Abrasion
SE=Sand Equivqlent
AIV=Aggregate Impact Value
JMC=Job Mix Formula
C.R=Crushing Ratio

SMEC-Brisbane-AQUA-BDA-CEMAT
Approved by C.S.E
Checked by A.C.S.E
Consultant Reps

CTCE-KALIKA J/V
Submitted by Project Manager
Prepaid by Q.C Manager
Contractors Reps

Secondary Town Integrated Urban Environmental Improvement Project

Biratnagar Sub-Metropolitan city

Contract Package: STIUEIP/W/BRT/ICB-01

DAILY WEATHER RECORD

FOR THE MONTH OF JANUARY 2018

Date	WEATHER Record						Temp.c			
	Sunny	Foggy	Cloudy	Morning Rain HRS	Night Rain Hrs.	Day Rain Hrs.	9:00 AM	5:00 PM	Rain Fall MM	
1		Foggy					18	14		
2		Foggy					17	14		
3		Foggy					12	10		
4		Foggy					8	6		
5		Foggy					14	10		
6		Foggy					12	8		
7		Foggy					14	10		
8		Foggy					12	10		
9		Foggy					8	6		
10		Foggy					8	7		
11		Foggy					10	8		
12		Foggy					12	10		
13		Foggy					14	10		
14		Foggy					15	10		
15		Foggy					16	14		
16		Foggy					17	15		
17		Foggy					18	15		
18		Foggy					18	14		
19		Foggy					17	14		
20		Foggy					18	16		
21		Foggy					18	16		
22		Foggy					18	16		
23	Sunny						20	17		
24	Sunny						21	18		
25	Sunny						19	16		
26	Sunny						20	16		
27	Sunny						21	17		
28		Foggy					20	18		
29		Foggy					21	18		
30		Foggy					20	17		
31		Foggy					21	18		

Approved By C.S.E Record Checked By ~~Junior Engineer~~/ACSE Consultant Reps	SMEC-Brisbane-AQUA-CEMAT-BDA
Submitted By Project Manager Record Reported By Q.C Manager Contractor Reps	CTCE-KALIKA

Secondary Towns Integrated Uraban Environmental Improvement Project

Biratnagar Sub-Metropolitant City

TEST RESULT SUMMARY SHEET For the Month of JANUARY ~~2017~~ 2018

COMPRESSIVE STRENGTH OF BRICKS (Process Control Test) P.G-1

SN No	Ref. STIUEIP LAB/	Date of Testing	Location	Chanage	BRAND NAME 1 st class brick	Compressive Strength N/mm2	SCALE OF Sample From
1	627	4/1/2018	R-6	Brick Man Hole	AMBEY	10.3	
2	628	5/1/2018	R-6	Brick Man Hole	AMBEY	10.1	
3	629	11/1/2018	R-26 Line	Brick Drainage	AMBEY	10.4	
4	630	11/1/2018	R-26 Line	Brick Drainage	AMBEY	10.5	
5	631	20/1/2018	B-2 Line	Brick Drainage	AMBEY	10.1	
6	632	22/1/2018	B-2 Line	Brick Drainage	AMBEY	10.2	
7	633	27/1/2018	B-2 Line	Brick Drainage	AMBEY	10.5	
8	634	27/1/2018	B-2 Line	Brick Drainage	AMBEY	10.5	
9	635	27/1/2018	R-26 Line	Brick Drainage	AMBEY	10.4	
10	636	27/1/2018	R-26 Line	Brick Drainage	AMBEY	10.1	
Specification					IS1077,IS2180or NS1/2035	> 10N/MM2	

SMEC-Brisbane-AQUA-BDA-CEMAT

Approved by Construction Supervision Engineer

Test Checked by ~~Junior Engineer~~ A.C.S.E.

Consultantr Reps

CTCE-KALIKA J/V

Submitted by Project Manager

Test conducted by Q.C Manager

Contractor Reps

SECONDARY TOWNS INTEGRATED URABAN ENVIRONMENTAL IMPROVEMENT PROJECT

Biratnagar Sub-Metropolitant City P.G-1

Summary of Concrete Crushed Aggregate 20mm down For The Month of January ~~2017~~ 2018

S.N.	DESCRIPTION / SOURCE	LAB REF. NO.	Grain Size Distribution				FI %	LAA %	ACV %	REMARKS
			25	20	10	4.75				
1	From Contractor Yard	519	100	96.90	39.65	6.52	13.31	33.88	21.4	Aggregates
2	From Contractor Yard	520	100	96.25	38.08	4.21	13.27	33.28	22.0	Source
3	From Contractor Yard	521	100	96.52	34.72	5.50	13.64	33.44	22.4	Om shree
4	From B-2 Line DPS to North Side	522	100	95.98	35.20	6.10	13.46	34.12	22.6	CRUSHER
5	From B-2 Line DPS to North Side	523	100	96.76	35.88	5.25	13.01	34.28	22.9	
6	From B-2 Line DPS to North Side	524	100	97.14	34.79	5.13	12.97	34.24	22.8	PLANT
7	From B-2 Line DPS to North Side	525	100	97.14	35.34	5.33	13.05	34.20	22.6	
8	From R-26 Line	526	100	96.46	33.44	4.26	13.15	34.44	22.6	
9	From R-6 Line	527	100	96.47	34.97	4.18	12.56	32.40	22.0	
10	From A-1 Line	528	100	96.92	45.04	5.09	12.96	32.12	23.1	
11	From A-1 Line	529	100	96.67	40.43	5.05	13.22	34.40	22.7	
12	WWTP Slum Well	530	100	96.72	38.39	4.55	13.04	34.16	22.9	
13	WWTP Slum Well	531	100	97.09	38.21	5.21	12.93	34.40	23.1	
Section 900:IS 383-1970 Required			100	95-100	25-55	0-10	Less 15%	Less 35%	Less 30%	

SMEC-Brisbane-AQUA-CEMAT-BDA
Approved by CSE
Test Checked by ~~Junior Engineer~~/A.C.S.E
Consultant Reps

CTCE-KALIKA J/V
Submitted by Project Manager
Test conducted by Q.C Manager
Contractor Reps

SECONDARY TOWNS INTEGRATED URABAN ENVIRONMENTAL IMPROVEMENT PROJECT

Biratnagar Sub-Metropolitant City

Summary of Fine Concrete Aggregates Sand FOR THE MONTH OF January 2018

S.N.	DESCRIPTION / SOURCE	LAB REF. NO:	Grain Siza Distribution							REMARKS
			10	4.75	2.36	1.18	0.6	0.3	0.15	
1	From Contractor Yard	519	100.00	93.20	81.20	62.80	44.00	20.00	5.60	source
2	From Contractor Yard	520	100.00	92.00	79.60	61.60	42.40	19.60	6.00	om shree
3	From Contractor Yard	521	100.00	92.80	79.60	61.20	41.20	20.00	6.80	Crusher Plant
4	From Contractor Yard	522	100.00	94.00	85.20	63.60	44.40	20.00	5.60	Chisang Morang
5	From Contractor Yard	523	100.00	94.78	86.35	65.06	45.38	19.68	6.02	
6	From Contractor Yard	524	100.00	92.80	84.00	62.40	42.40	18.00	6.40	
7	From Contractor Yard	525	100.00	93.60	84.40	60.40	40.00	16.40	5.20	
8	From B-2 Line	526	100.00	91.60	81.20	58.40	39.60	16.40	4.40	
9	From WWTP Yard	527	100.00	94.00	85.60	66.40	45.60	22.00	6.00	
10	From WWTP Yard	528	100.00	94.80	86.00	67.60	46.40	22.40	6.80	
11	From WWTP Yard	529	100.00	95.60	86.40	66.80	46.00	21.60	6.80	
12	From WWTP Yard	530	100.00	96.40	86.40	66.00	42.80	18.80	5.60	
Specifacation Limit is 383-1970 Zone -2			100-100	90-100	75-100	55-90	35-59	8 to 30	0-10	

SMEC-BRISBANE-AQUA-CEMAT-BDA
Approved by C.S.E
Test Checked by A.C.S.E/J.E/R
Consultant Reps

CTCE-KALIKA J/V
Submitted by Project Manager
Test Conducted by Q.C Manager
Contractor Reps

SECONDARY TOWNS INTEGRATED URABAN ENVIRONMENTAL IMPROVEMENT PROJECT

BiratnagarSub-Metropolitant City

CEMENT TEST SUMMERY

For the Month of January 2018

S.N.	Lab. Ref. NO.	Description of cement	Testing Date	Consistency & Setting Time			Remarks
				Norm. Const.	Intial(min.)	Final(min.)	
1	MR 411	SHIVAM OPC	4/1/2018	38.1	170	270	From R-26 Line
2	MR 412	SHIVAM OPC	5/1/2018	37.9	175	280	From R-26 Line
3	MR413	SHIVAM OPC	8/1/2018	37.7	165	285	From R-6 Line
4	MR 414	SHIVAM OPC	10/1/2018	37.9	160	280	From R-6 Line
5	MR 415	SHIVAM OPC	12/1/2018	38.3	140	270	From R-6 Line
6	MR 416	SHIVAM OPC	16/1/2018	38.4	145	280	From B-2 Line
7	MR 417	SHIVAM OPC	19/1/2018	38.7	155	285	From B-2 Line
8	MR 418	SHIVAM OPC	21/1/2018	38.9	145	300	WWTP Slum Well
9	MR 419	SHIVAM OPC	22/1/2018	38.7	150	310	WWTP Slum Well
10	MR 420	SHIVAM OPC	25/1/2018	38.3	160	315	WWTP Slum Well
Requirements in accordance with BS 12					> 45 Min.	10 Hrs (600 minute)	

SMCE-Brisbane-AQUA-BDA	CTCE-KALIKA J/V
Approved by C.S.E	Submitted by Project Manager
Test Checked by A.C.S.E/ J.E/R	Test Conducted by Q.C Manager
Consultant Reps	Contractores Reps

SECONDARY TOWNS INTEGRATED URABAN ENVIRONMENTAL IMPROVEMENT PROJECT

Biratnagar Sub-Metropolitant City

SUMMARY OF CUBE COMPRESSIVE STRENGTH TEST M20/20 , M25/20 & M30/20 Work Mix

FOR THE MONTH OF JANUARY 2018

P.G-1

S.N.	Lab Ref No.	Date of Casting	Deatails of Mix	Location / Structure	Ratio by Volume				Type of Material		Cube Crushing ,N/mm2		Remarks
					water	Cement	Sand	Aggregates	Cement Brand	Aggregate/Sand	7 days	28-Days	
1	905	16/12/2017	M20 Work Mix	R-6 Line Shai Marga	0.50	1	2	3.5	Shivam	Om shree C/plant	14.37	20.22	
2	906	16/12/2017	M20 Work Mix	R-26 Line	0.50	1	2	3.5	Shivam	Om shree C/plant	14.52	20.37	
3	907	16/12/2017	M20 Work Mix	R-26 Line	0.50	1	2	3.5	Shivam	Om shree C/plant	14.67	20.44	
4	908	17/12/2017	M20 Work Mix	R-6 Line Shai Marga	0.50	1	2	3.5	Shivam	Om shree C/plant	14.00	20.15	
5	909	18/12/2017	M20 Work Mix	A-1 Line	0.50	1	2	3.5	Shivam	Om shree C/plant	14.07	20.59	
6	910	19/12/2017	M20 Work Mix	A-1 Line	0.50	1	2	3.5	Shivam	Om shree C/plant	14.22	20.52	
7	911	19/12/2017	M20 Work Mix	R-6 Line Shai Marga	0.50	1	2	3.5	Shivam	Om shree C/plant	14.07	20.81	
8	912	21/12/2017	M20 Work Mix	B-2 Line DPS North Side	0.50	1	2	3.5	Shivam	Om shree C/plant	14.44	20.96	
9	913	22/12/2017	M20 Work Mix	S-9 RCC	0.50	1	2	3.5	Shivam	Om shree C/plant	14.37	21.26	
10	914	22/1/2018	M30 Work Mix	WWTP Slum Well Rcc Bottom	0.32	1	1	2	Shivam	Om shree C/plant	24.96	Remain	Acceleratar 150ml per bag
11	915	22/1/2018	M30 Work Mix	WWTP Slum Well Rcc Bottom	0.32	1	1	2	Shivam	Om shree C/plant	25.04	Remain	Plasticizer 700ml per bag
12	916	24/1/2018	M25 Work Mix	A-1 Line	0.50	1	2	3.5	Shivam	Om shree C/plant	15.85	Remain	
										Min Required	13.4	20	
										Min Required	16.75	25	
										Min Required	20.1	30	

SMEC-Brisbane-AQUA-BDA
Approved by Construction Supervision Engineer/CSE
Test checked by ~~Junior Engineer~~/A.C.S.E
Consultants Reps

CTCE-KALIKA J/V
Submitted by Project Manager
Test conducted by Q.C Manager
Contractors Reps

Secondary Towns Integrated Uraban Environmental Improvement Project

Biratnagar Sub-Metropolitant City

SUMMARY OF ASPHALT CONCRETE WEARING COURSE COMBINED TEST RESULTS

Contract Package:STUEIP/W/BRT/ICB/01

S. No.	LAB REF. NO.	Date of Sampling	Location of Work	Mix Agg Gradation of HMP Running % Passing Sieve Sizes mm							FI	LAA	ACV	SSS
				20	16	9.5	4.75	2.36	0.600	0.075	%	%	%	%
1	31	13/1/2018	HMP Running Bin- Plant	100	100.00	79.92	56.67	34.17	18.3	6.98	13.78	34.08	18.3	3.20
2	32	13/1/2018	HMP Running Bin- Plant	100	100.00	78.56	55.55	34.11	18.4	6.87	13.39	33.80	18.70	3.40
3	33	20/1/2018	HMP Running Bin- Plant	100	100.00	77.71	55.83	35.82	17.99	6.80	13.26	33.08	19.00	3.00
4	34	20/1/2018	HMP Running Bin- Plant	100	100.00	78.00	56.16	36.47	18.51	6.79	13.63	33.48	19.00	2.40
Specification Limits				100-100	100-100	76-82	54-59	33-37	16-19	6 to 9	LESS 25%	LESS 40%	LESS 20%	MAX 12%

SMEC-Brisbane-AQUA-CEMAT-BDA

Approved by C.S.E

Test Checked by A.C.S.E

Consultant Reps

CTCE-KALIKA J/V

Submitted by Project Manager

Test Conducted by Q.C Manager

Contractor Reps

Secondary Towns Integrated Uraban Environmental Improvement Project

Biratnagar Sub-Metropolitant City

SUMMARY OF HOT MIX ASPHALT CONCRETE WEARING COURSE TEST RESULTS

Contract Package:STUEIP/W/BRT/ICB/01

MONTH:JANUARY 2018

S. No.	LAB REF. NO.	Date of Laying	Location of Work ch:	Mix Agg Gradation % Passing Sieve Sizes mm							PRIME COAT Application		TACKCOAT Application		Bitumen Content From Extraction Test %	Mix Density gm/cc	Air Voids %	VMA %	Stability N	Flow mm
				20	16	9.5	4.75	2.36	0.6	0.08	Dist. Spray Rate Lit/m2	Avg.Tray Spray Rate Lit/m2	Dist. Spray Rate Lit/m2	Avg.Tray Spray Rate Lit/m2						
1	31	13/1/2018	0+000 to 0+118 WWTP inner Road	100	100.00	79.88	56.70	34.25	18.37	7.04	1.01	1.01	0.48	0.45	5.55	2.369	2.42	15.25	11709	2.32
2	32	17/1/2017	0+000 to 0+080,,0+118 to 0+220WWTP inner road	100	100.00	78.83	55.12	32.68	16.60	6.44	1.01	1.00	0.56	0.59	5.55	2.368	2.47	15.29	11736	2.25
Specifacations				100	100-100	76-82	54-59	33-37	16-19	6 to 9	1.0 kg/m2 ± 5%		0-4 to 0-6 Kg/m2		5-6	Min-2.365	2-4%	≥ 15	≥ 8000	2-3

Remarks:

SMEC-Brisbane-AQUA-CEMAT-BDA	CTCE-KALIKA J/V
Approved by C.S.E	Submitted by Project Manager
Test Checked by A.C.S.E	Test Conducted by Q.C Manager
Consultant Reps	Contractor Reps

ANNEX-4: Contractor's Progress Report for Jan, 2018

Government of Nepal
Biratnagar Sub-Metropolitan City, Biratnagar, Nepal
Secondary Towns Integrated Urban Environment Improvement Project (STIUEIP)
Project Implementation Unit(PIU)
Biratnagar, Nepal

Project Directorate (ADB)

Sewerage and Drainage Network, Wastewater Treatment Plant, and Road and Lanes Improvement Subproject
STIUEIP/W/BRT/ICB-01

Monthly Progress Report – 50

January 2018

Consultants:

in association with
Brisbane City Enterprise Pty Ltd – Australia
AQUA Consultant and Associates Ltd – Bangladesh
Building Design Authority – Nepal
CEMAT Consultants – Nepal

Submitted by:

CTCE/KALIKA JOINT VENTURE

Address: Kalika tower-6th floor, Baluwatar, Kathmandu, Nepal. Tel: 01-4439152, 4439153, 4439154, Fax: 01-4439155.
E-mail: info@kalikagroup.com, Site Office: Katahari Tel. 9852024596 E-mail: kalikabrt@gmail.com

TABLE OF CONTENTS

Contractor: CTCE-KALIKA J.V.
Site Office: Katahari, Judi

1.INTRODUCTION

Secondary Towns Integrated Urban Environmental Improvement Project (STIUEIP), 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 2650-NEP. STIUEIP includes construction of Sewerage and Drainage Network, Wastewater Treatment Plant, Road and Lanes Improvement and additional of road side drain & water supply work. The main purpose of this project is to fascinate with better improvement of greenery urban city.

2.PROJECT COMPONENTS

The Town Integrated Urban Environmental Improvement Project (STIUEIP) consists of following Sub-Project Components:

- **Drainage Network**
  The main aim of drainage network is to drain out storm water to the river side during the monsoon season and minimized the water pounding in the city
- **Sewerage Network**
  Management of household sewerage project to the treatment plant in connection with chambers, manhole and pipes
- **Wastewater Treatment Plant Subproject**
  Treatment of sewer product in plant located at Jatuwa. The treated water is drain out to Singhiya river and solid waste project used as fertilizer in farming.
- **Road and Lanes Improvement Subproject**
  Existing road sections at different part of Biratnagar will be upgraded by extending road width and providing footpath.
- **Road Side Drain and Water Supply Network (Additional)**
  Road side drain and water supply network is addition of scope of work in this project. Road side drain is proposed to discharge the rain water. Whereas water supply work is for relocation of existing water pipe lines to appropriate location as well as repair of damaged pipe lines during construction

Contractor: CTCE-KALIKA J.V.
Site Office: Katahari, Judi

3. SALIENT FEATURE

A. General Features	
Employer	Government of Nepal(GoN), Ministry of Urban Development Department of Urban Development and Building Construction
Funded By	Asian Development Bank & Government of Nepal
Project	Biratnagar Sub-Metropolitan City Secondary Towns Integrated Urban Environmental Improvement Project(STIUEIP)
Contract No.	STIUEIP/W/BRT/ICB-01
Location	Biratnagar Sub-Metropolitan City
Consultant	SMEC-Brisbane-AQUA-BDA-CEMAT
Contractor	CTCE-KALIKA JV.
Commencement Date	December 8th, 2013
Original Completion Date	25 May 2016
Revised Completion Date after EOT-02	2 July 2017
Revised Completion Date	30 Nov 2017
Proposed Revised EOT	31 March 2018
Original Contract Period	900 Days
Original Contract amount with PS & VAT	NRs 2,391,332,117.06
Revised Contract amount after VO # 03. with PS & VAT	NRs 2,956,290,542.71

Contractor: CTCE-KALIKA J.V.
Site Office: Katahari, Judi

4. SCOPE OF WORKS

The activities to be undertaken according to the Contract Agreement are as follows:

a. To carry out all necessary topographic surveys, soils investigations, laboratory analysis or related investigations where necessary to supplement the data provided by the Employer.
b. To prepare working drawings for all elements of the Works.
c. To undertake all steps necessary for upgrading of roads and bridges, all related to access to the Site, or other related matters, where his opinion differ significantly from
d. Preparation of stockyards for pipes, fittings and other materials and equipment.
e. To take all steps necessary for the temporary or permanent diversion of services and the maintenance of services during the execution of the Works, including diversion of overhead with underground power lines, telephone ducts, water supply mains and distribution lines (pipes), sewers and other underground services as required along the route of the pipelines.
f. To supply all pipes, valves, fittings and other materials and equipment required for construction of the Works. The Contractor's supply items may include manufacture, collection, transportation and delivery to Site. The Contractor will be responsible for ensuring that all procedures are adequately covered and that the materials fully confirm to the Contract requirements. These responsibilities will include all necessary charges or dues related to insurance, freight, taxes (including customs and excise duties, surcharges etc.) and all testing and inspections for quality control.
g. To provide all necessary staff (including civil engineers, specialists, administrators, site supervision personnel) and workmen (including all necessary specialists, operators, tradesmen, artisans etc. in addition to semi-skilled and unskilled workers) necessary for execution of the Works through to completion. Where appropriate, the contractor shall provide all suitable facilities and accommodation for the staff and workmen and he shall make provision for all costs related to such provisions and for medical, re-location, taxes or other expenses.
h. To provide all equipment, machinery, tools etc. and related spares maintenance and consumables necessary for implementation of the Works.
i. To provide all site offices, stores, workshops and facilities necessary for use by the Employer, Engineer and support staff and for the Contractor himself and his supporting staff.
j. To undertake all operations necessary to complete the Works. These operations shall include: excavation, provision, haulage and installation of suitable bedding and backfill material and disposal of surplus excavated material; distribution, laying adjoining of pipes; installation of all special pipework, valves etc. and construction of all related concrete or other activities together with all testing and disinfection of completed Works. The Contractor's attention is drawn to the restricted working space between Rajbangsi Chowk to Rani, Biratnagar where the sewer pipes, drains and road/lane is to be laid in a narrow road. In this section work in addition to that associated with the trunk main, will include but not be limited to, removal and replacement of a sewer laid in the road and reinstatement of road surface.
k. To liaise with other contractors on the site and to ensure harmonious co-operation with them so that conflicts are avoided and areas of common interest, constructional interface or potential overlaps are addressed without cost to the Employer or delays in completion.
l. To prepare documentary records of the Works in the form of "as-built" drawings and GIS data, schedules etc., and to train staff of the Employer in the procedures for laying pipes, valves and fittings.
m. All the above activities shall be performed in a professional way and with good engineering and/or constructional practice. Upon completion of the Works the scheme shall be fully operational with minimum

disruption or inconvenience to interested parties, including land owners, and there shall be no outstanding matters requiring attention.

5. PHYSICAL PROGRESS (ACHIEVEMENT TILL THE MONTH)

A. STORM WATER DRAIN AND ROAD SIDE DRAIN SUB-PROJECT (WORK PROGRESS TILL THE DATE)

Physical Progress Till Jan, 2018						
S.No.	Location	Final Proposed Length	Progress		Total To Date	Progress (%)
			Upto Previous (m)	This Month (m)		
1	B1	3848	3848		3848	100
2	B2	3733	3733		3733	100
3	B3	3463	3463		3463	100
4	S5	1201	1201		1201	100
5	S9	2930	2930		2930	100
6	S11	1350.6	1350.6		1350.6	100
7	S13	4864	4864		4864	100
8	CN2	2197.3	2197.3		2197.3	100
9	CN3	2238.15	2238.15		2238.15	100
10	Rani	6596.28	6596.28		6596.28	100
11	A1	1238.5	1238.5		1238.5	100
Total		33659.83	33659.83	0	33659.83	100

Contractor: CTCE-KALIKA J.V.
Site Office: Katahari, Judi

Monthly Progress Report No. 50 January 2018

Physical Progress in Road Side Drains:

SN	Location	Length	Total Length(m)	Progress		Total to Date(m)	Progress(%)
				Up to Previous(m)	This Month(m)		
1	R2	3240	6840	6840		6840.00	100.00%
2	R3	2233	2993	2964		2964.00	99.03%
3	R4	1246	2212	933.3		933.30	42.19%
4	R5	1068	2136	2136		2136.00	100.00%
5	R6	1280	2560	0	700	700.00	27.34%
6	R7	485	615	825		825.00	134.15%
7	R8	370	740	1267.1		1267.10	171.23%
8	R9D	116	232	232		232.00	100.00%
9	R13	220	440	433.85		433.85	98.60%
10	R16	580	1160	1160		1160.00	100.00%
11	R21	2420	2420	2420		2420.00	100.00%
12	R22	359	718	718		718.00	100.00%
13	R24	390	780	780		780.00	100.00%
14	R25	594	1188	1180		1180.00	99.33%
15	R26	620	1240	1240		1240.00	100.00%
16	R27	977	1954	1954		1954.00	100.00%
17	R28	620	1240	908.35		908.35	73.25%
18	R29	620	1240	1470.1		1470.10	118.56%
19	R30	328	656	600		600.00	91.46%
20	R31	187	374	374		374.00	100.00%
21	R32	189	378	0	50	50.00	13.22%
22	R37	785	1570	1570		1570.00	100.00%
23	R64	120	120	120		120.00	100.00%
24	R78	92	184	82		82.00	44.57%
25	R107	157	314	315		315.00	100.32%
26	R108	96	192	190		190.00	98.96%
27	R109	90	360	355		355.00	98.61%
28	T2L18O	143	286	268		268.00	93.71%
29	T3L26E	93	186	48		48.00	25.81%
30	T3L19R	177	354	250	100	350.00	98.87%
31	T2L19P	103	206	468.05		468.05	227.21%
32	T2L19U	81	162	0	162	162.00	100.00%
33	T3L28	74	148	145		145.00	97.97%
34	R42			281.6		281.60	
35	R104			590.70		590.70	
36	R73			468.90		468.90	
37	T2-L26F			110		110.00	
	Total		36198	33697.95	700	34709.95	95.88%
Total Excluding R6 & Remaining of R4			31426			33076.65	105.25%

Contractor: CTCE-KALIKA J.V.
Site Office: Katahari, Judi

B. SEWERAGE SUB-PROJECT (WORK PROGRESS TILL THE DATE)

12. Physical Progress In Sewer line in Janurary 2018

S.No.	Location	As per VO-3		Upto Previous Month		This Month		Update Work		% work		Remarks
		Distance	Manhole No.	Distance	Manhole No.	Distance	Manhole No.	Distance	Manhole No.	Distance	Manhole No.	
1	HDPE (T1)	3817	127	3819.5	125	0	0	3819.5	125			
2	HDPE (T2)	13595.4	485	13082.65	454	50	0	13082.7	454			
3	HDPE (T3)	6947.1	258	6705.1	242	0	0	6705.1	242			
4	HDPE (T4)	117.3	3	112	3	0	0	1120	3			
5	Subtotal (HDPE)	24476.9	873	23719.25	824	50	0	23769.25	824	97.11	94.39	
6	Hume Pipe (T1)	5026.8	144	4761.2	125	0	0	4761.2	125			
7	Hume Pipe (T2)	9488	276	9442.4	229	700	7	9442.4	236			
8	Hume Pipe (T3)	4493.3	136	3981.5	99			3981.5	99			
9	Hume Pipe (T4)	183.5	5	185	5		0	185	5			
10	Subtotal (Hume Pipe)	19191.6	561	17870.1	458	700	7	19070	465	99.36	82.89	
11	Total (HDPE + Hume Pipe)	43668.5	1434	41589.35	1282	700	7	42839.25	1289	98.1	89.89	

SN	Description	Unit	Total Upto Previous Month	This Month	Total Up to this Month	Remarks
1	Sewer Inlet	Nos.	2353	5	**2358**	
2	House Connection	Nos.	2098	20	**2118**	

C. ROAD IMPROVEMENT WORKS (WORK PROGRESS TILL THE DATE)

SN	Description	Unit	Proposed	Total Up to Previous Month	This Month	Total Up to this Month	Remarks
1	Asphalt pavement in R2 Road with access road	Rm		**3201.00**	400	**3601.00**	
2	Gravel road	Rm		**38140.00**	**0**	**38140.00**	
	Total	**RM**	**44643.00**	**41341.00**	**0**	**41741.00**	**93.49%**

Contractor: CTCE-KALIKA J.V.
Site Office: Katahari, Judi

D. Waste Water Treatment Plant Sub-Project (Work Progress till the date)

Physical Progress in Waste Water Treatment Plant (WWTP), till January, 2018							
S.No.	Description	As per VO-3 quantity	Progress		Update work	% work	Remarks
			Upto Previous Month	This Month			
1	Anaerobic Pond	3	3		3	100	
2	Facultative Pond	3	2.67		2.9	96.67	
3	River Training Work	600	600		600	100	
4	Boundary Wall	1330	1283		1283	96.47	
5	Office cum Lab Building	1	1		1	100	
6	Workshop Building	1	1		1	100	
7	Generator/Charging House	1	1		1	100	
8	Sump Well	1	0.65		0.7	70	Remaining work under progress
9	Sludge Drying Bed	1	0.92		0.98	98	Plaster Work under progress
10	Road Side Drain	2880	1491.1		1551.1	53.85	
11	Bio-engineering Works	1			0.5	50	
12	Guard House	1	0.9		0.9	90	

B. Production of Precast Items from Slab Casting Contractor's Yard, Katahari

SN	Description	Unit	Total Up to Previous Month	This Month	Total Up to this Month	Remarks
1	Slab	Rm	127213	2000	129213	
2	Precuts	Rm	11209	0	11209	
3	Kerb stone	Rm	23135		23135	
4	Manhole	Nos	2200	0	2200	
5	Sewer inlet	Nos	2524	0	2524	
6	House chamber	Nos	2287	0	2287	

F. Hume Pipe Production from Hume Pipe Production Factory, Itahari

Contractor: CTCE-KALIKA J.V.
Site Office: Katahari, Judi

Monthly Progress Report No. 50 **January 2018**

SN	1	2	3	4	5	6	7	8	9	10	11
Diameter	200mm nos	300mm nos	350mm nos	400mm nos	450mm nos	500mm nos	600mm nos	700mm nos	900mm nos	1000mm nos	1600mm nos
No of Moulds	38	3	2	2	2	3	8	8	2	4	2
Production Til Previous Month	2123	508	216	370	84	551	963	1296	278	1011	373
This Month Production	0	0	0	0	0	0	0	0	0	0	0
Total Production	2123	528	216	430	84	551	963	1296	278	1011	373

H. Next month program

1. Completion of Outstanding work on DLP

2. Sump well Work in WWTP, Jatuwa.

3. Sewer pipe lines and inlet laying R6.

Contractor: CTCE-KALIKA J.V.
Site Office: Katahari, Judi

FINANCIAL PROGRESS AND CASH FLOW

SN	Installment Number	Total Bill Amount With Vat and PS(NRs)	Net Payable Amount (NRs.)	%	Remarks
1	IPC 01		200,940,000.00		Advance Payment 01
2	IPC 02	29,553,479.92	27,853,500.98		IPC 2
3	IPC 03	50,406,775.75	47,507,270.95		IPC 3
4	IPC 04	44,819,505.68	42,241,392.52		IPC 04
5	IPC 05	23,380,168.96	22,035,291.99		IPC 05
6	IPC 06	90,796,339.68	85,573,541.38		IPC 06
7	IPC 07	80,854,600.52	76,203,672.17		IPC 07
8	IPC 08	122,334,488.86	115,297,549.23		IPC 08
9	IPC 09	116,092,187.14	109,414,317.97		IPC 09
10	IPC 10	132,327,417.89	124,715,663.77		IPC 10
11	IPC 11	169,853,829.07	160,083,476.07		IPC 11
12	IPC 12	23,121,515.46	16,931,906.24		IPC 12
13	IPC 13	85,563,926.44	62,658,539.06		IPC 13
14	IPC 14	163,562,505.71	119,776,967.67		IPC 14
15	IPC 15	139,008,112.96	101,795,764.14		IPC 15
16	IPC 16	137,640,413.95	100,794,196.94		IPC 16
17	IPC 17	135,118,714.02	98,947,553.85		IPC 17
18	IPC 18	39,288,088.98	28,770,702.32		IPC 18
19	IPC 19	76081596.87	55,714,620.72		IPC 19
20	IPC 20	74,522,638.96	54,572,994.46		IPC 20
21	IPC 21	152,577,081.94	118,075,775.83		IPC 21
22	IPC 22	140,477,295.40	132,396,742.98		IPC 22
23	IPC 23	66,139,814.38	62,335,311.79		IPC 23
24	IPC 24	110,913,194.49	104,533,231.98		IPC 24
25	IPC 25	169,428,867.45	159,682,959.15		IPC-25
26	IPC-26	129,978,851.94	122,502,192.32		IPC-26
27	IPC-27	65,357,880.77	61,598,356.67		IPC-27
28	IPC-28	84960602.31	80,073,488.03		IPC-28
29	IPC-29	131945614.31	**124,355,822.35**		IPC-29
Total amount of Ipc=		**2,786,105,509.81**	**2,617,382,803.53**	89.78%	

Contractor: CTCE-KALIKA J.V.
Site Office: Katahari, Judi

Monthly Progress Report No. 50 **January 2018**

Physical Progress

SN	Installment Number	Total Bill Amount With Vat and PS(NRs)	Net Payable Amount (NRs.)	%	Remarks
1	IPC 01		200,940,000.00		Advance Payment 01
2	IPC 02	29,553,479.92	27,853,500.98		IPC 2
3	IPC 03	50,406,775.75	47,507,270.95		IPC 3
4	IPC 04	44,819,505.68	42,241,392.52		IPC 04
5	IPC 05	23,380,168.96	22,035,291.99		IPC 05
6	IPC 06	90,796,339.68	85,573,541.38		IPC 06
7	IPC 07	80,854,600.52	76,203,672.17		IPC 07
8	IPC 08	122,334,488.86	115,297,549.23		IPC 08
9	IPC 09	116,092,187.14	109,414,317.97		IPC 09
10	IPC 10	132,327,417.89	124,715,663.77		IPC 10
11	IPC 11	169,853,829.07	160,083,476.07		IPC 11
12	IPC 12	23,121,515.46	16,931,906.24		IPC 12
13	IPC 13	85,563,926.44	62,658,539.06		IPC 13
14	IPC 14	163,562,505.71	119,776,967.67		IPC 14
15	IPC 15	139,008,112.96	101,795,764.14		IPC 15
16	IPC 16	137,640,413.95	100,794,196.94		IPC 16
17	IPC 17	135,118,714.02	98,947,553.85		IPC 17
18	IPC 18	39,288,088.98	28,770,702.32		IPC 18
19	IPC 19	76081596.87	55,714,620.72		IPC 19
20	IPC 20	74,522,638.96	54,572,994.46		IPC 20
21	IPC 21	152,577,081.94	118,075,775.83		IPC 21
22	IPC 22	140,477,295.40	132,396,742.98		IPC 22
23	IPC 23	66,139,814.38	62,335,311.79		IPC 23
24	IPC 24	110,913,194.49	104,533,231.98		IPC 24
25	IPC 25	169,428,867.45	159,682,959.15		IPC-25
26	IPC-26	129,978,851.94	122,502,192.32		IPC-26
27	IPC-27	65,357,880.77	61,598,356.67		IPC-27
28	IPC-28	84960602.31	80,073,488.03		IPC-28
28	IPC-29	131945614.31	**124,355,822.35**		IPC-29
29	WIP	50000000			
Total amount of Ipc=		**2,836,105,510**	**2,617,382,804**	93.16%	

Contractor: CTCE-KALIKA J.V.
Site Office: Katahari, Judi

7. DETAILS OF SAFEGUARD ACTIVITIES

Contractor's is fascinating to apply safety measure at site during construction phase. Safety board, Diversion board, safety barriers, personnel's protection equipment to worker, spraying of water to minimize dust pollution.

8. KEY ISSUES AND REMARKS

Following issues were raised in this month

- Submitted Claim No.01 to 07 has not addressed up to this month.

9. Mobilized Resource

A. Details of Contractor's Personnel at Site

SN	Contractor's Personnel's	Position
1	Ujjwal Prasai	Project Manager
2	Mahesh Subedi	Sr. Engineer
3	Bishesh Prasai	Sr. Engineer
4	Gaurav Bikram Shah	Engineer
5	Ankit Dahal	Engineer
6	Rabin Mandal	Engineer
7	Randhir Kumar Singh	Engineer
8	Narayan Rijal	Sr. Supervisor
9	Uttar Karki	Supervisor
10	Ajaya Rai	Supervisor
11	Yog Raj Kafle	Supervisor
12	Saroj Adhikari	Overseer
13	Suraj Chaudahary	Overseer
14	Sanjay Shrestha	Overseer
15	Bibekananda Yadav[Nikhil]	Overseer
16	Prakash Bhattarai	Sub Overseer
17	Sandesh Sunam	Sub Overseer
18	Santosh Yadav	Computer operator
19	Pritam Sunrait	Sub Overseer
20	Kushal Neurala	Overseer
21	Saroj Parajuli	Overseer
22	Vishwa Bandhu Mainali	Finance Officer
23	Anil Pokharel	Safety In Charge / PRO

Contractor: CTCE-KALIKA J.V.
Site Office: Katahari, Judi

24	Sunil Chaudhary	Quality Control Manager
25	Shanker Chaudhary	Lab Technician
26	Dipesh Dahal	Lab Assistant
27	Rabin Pandit	Lab Assistant
28	Mahesh Pandit	Store Keeper
29	Saroj Bhattarai	Store Keeper
30	Sailesh Paudel	Store Keeper
31	Dipendra Karki	Store Assistant
32	Rabin Bdr Gurung	Store Keeper
33	Dhurba Raj Bhattarai	Store Keeper
34	Nil Prasad Neupane	Store Keeper
35	Ananda Rajbansi	Electrician
36	Ajay Chaudhary	Welder
37	Mechanics	4
38	Plumber	6
39	Light Vehicle Driver	4
40	Tipper Driver	16
41	Water Tanker Driver	5
42	Tractor Driver	15
43	Heavy Equipment operator	32
44	Helper	54
45	Cook (Casting yard and Jatuwa)	8
46	Security Guard (casting yard and Jatuwa)	4
47	Skilled Labor	30
48	Unskilled Labor	60

Contractor: CTCE-KALIKA J.V.
Site Office: Katahari, Judi

C. **Details of Equipment at Site / Contractor's yard**

	Equipment	Capacity	Nos
A.1	**Excavators**		
	Komatsu PC 200 "B" (long boom)	148HP /0.97m3	1
	Cat Excavator 320DL "A"	148HP /0.97m3	1
A.3	**Back Hoe Loader**	92HP/0.30m3	9
A.4	**Grader**		
	Komatsu GD405A-2	115HP	1
	CAT 140G	115HP	1
A.5	**Jeep/Pickup**		
	Pajero-Na2Cha 1086	5 door	1
	Tata Sumo Gold	5 door	2
	Pickup - Ko1Cha 2544	4 door	1
A.6	**Water Browser**		
	Water Tanker Na1Kha 2595	Up to 12KL	1
	Water Tanker Na1Kha 101	Up to 12KL	1
	Tractor Water Tanker	Up to 4KL	3
A.7	**Motorbikes**		
	Shine Bike Ko 17 Pa-3394	125cc	1
	Shine Bike Ko 17 Pa-3395	125cc	1
	Shine Bike Ko 20 Pa-215	125cc	1
	Shine Bike Ko 20 Pa-230	125cc	1
	Shine Bike Ko 20 Pa-1155	125cc	1
	Shine Bike Ko 20 Pa-1167	125cc	1

Contractor: CTCE-KALIKA J.V.
Site Office: Katahari, Judi

	Shine Bike Ko 11 Pa-8157	125cc	1
	Honda Shine Ve 1 Pa 8845	125cc	1
	Glamor (Ko 24 3802	100 cc	1
	Glamor (Ko 24 3804)	100 cc	1
A.8	**Tractors**		
	Tractor Ko 1Ta 5868	85HP/ Hydraulic	1
	Tractor Na 3 7936	85HP/ Hydraulic	1
	Tractor Ko1Ta 4145	85HP/ Hydraulic	1
	Tractor Ko 2 Ta 4065	85HP/ Hydraulic	1
	Tractor Ko1Ta 7655	85HP/ Hydraulic	1
	Tractor Ko1Ta 8882	85HP/ Hydraulic	1
	Tractor Na1Ta 6204	85HP/ Hydraulic	1
	Tractor Ko1Ta 1755	85HP/ Hydraulic	1
	Tractor Ko1Ta 3440	85HP/ Hydraulic	1
A.9	**Roller & Compactor**		
	JCB Roller		1
	Case Compactor 450 DX	Upto 5Ton	1
	Single Drum Hand Roller [Honda GX160]	4Kw	2
	Monkey Jumper[Honda GX 160]	6.5Ps/10000N	2
	Plate Compactor		3
	Heavey Duty Tapping Rammer	4.4km	1
A.10	**Tipper Truck**		
	AMW Tipper-Na1Ka 3489	150HP/10m3	1
	AMW Tipper-Na1Ka 3494	150HP/10m3	1
	AMW Tipper-Na1Ka 3491	150HP/10m3	1
	AMW Tipper-Na1Ka 3493	150HP/10m3	1
B	**Bituminous Plant/Crane & Others**		
	Asphalt Hot Mix Plant Set -Keshar DM45	40 to 60 Ton/Hr	1
	Asphalt Paver Machine-Na1Ka 3135	105HP	1

Contractor: CTCE-KALIKA J.V.
Site Office: Katahari, Judi

	Mobile Unique Crane with Teller Ba1Ka 4423	10Ton	1	D
	JCB Hydra Lift all	15Ton	1	E.
				F.
C	**Concreting Unit**			G
	Manual Mixture Machine[Everest]		10	H
	Manual Mixture Machine [Ashoka]		2	I.
	Hydraulic Mixture Machine[Universal]		3	J.
	Hydraulic Mixture Machine[Kirloskar]		2	K.
	Bar Bending Machine Set	4Ton/Hrs	3	
	Bar Cutter Machine Set	4Ton/Hrs	3	
	Concrete Vibrator with Needle	Diesel/3PHs/Pneumatic	10	
D	**Work Shop Equipment and Tools**			
	Generator-Kirloskar/Jackson	20Kva	2	
	Generator [Kirloskar]	125Kva	1	
	Generator	62.5Kva	1	
	Generator[Honda]	2.5Kva	1	
	Generator[Super]	5KVA	1	
	Generator[Lutian] [LT3600]	2.5KVA	1	
	Welding Machine Set	4Ton/Hrs	1	
	Concrete Cutter		1	
	Kerb Stone Machine Set	41+00		
	Concrete Cutter		1	
	Water Tank (Joined with Tractor)	10Kl	1	
E	**Survey Equipment**			
	Total Station		2	
	Level Machine		15	
F	**Lab Equipment**		1 Set	

Contractor: CTCE-KALIKA J.V.
Site Office: Katahari, Judi

10. CONCLUSION

The progress of outstanding work and Sump well work at WWTP was speed up to meet our targeted work progress.

Contractor: CTCE-KALIKA J.V.
Site Office: Katahari, Judi

ANNEX

LAB REPORT SUMMARY

SECONDARY TOWNS INTEGRATED URBAN ENVIRONMENTAL IMPROVEMENT PROJECT

BIRATNAGAR SUB-METROPOLITAN City

STIUEIP

Monthly Laboratory Testing Report

(For The Month of JANUARY 2018)

Consultants:SMEC-Brisbane-AQUA-CEMAT-BDA

Contractors: CTCE- KALIKA J/V

S. No.	Description of Material	Type of test	Total No. of Test upto previous month	Test Performed for this month				Total No. of Test upto This month	Remarks
				No. of Tests	Passed	Failed	Retest Recommended		
1	Granular Material/Gravel material	Sieve analysis	90	0	0	0		90	
2	SUB GRADE Preparation	MDD & OMC	100	0	0	0		100	
	asPere Specifacation	Field density	779	0	0	0		779	
		C.B.R	100	0	0	0		100	
3	BRICK WORK	Water Absorption	445	0	0	0		445	
	Required Test	Compressive Strength	3391	50	50	0		3441	
4	Masonry Mortar (CM 7.05)	Compressive strength	4759	0	0	0		4759	
5	CONCRETE AGGREGATE					0			
	Coarse aggregate (20 mm)	Sieve analysis (20 mm)	451	13	13	0		464	
		LAA	343	13	13	0		356	
		Specific Gravity	16	1	1	0		17	
		FI	342	13	13	0		355	
		ACV	390	13	13	0		403	
	Fine aggregate (Sand)	Sieve analysis	518	12	12	0		530	
6	CONCRETE MIX DESIGN	Concrete mix Design	77	0	0	0		77	
	ConcreteM15/20,M20/20	Compressive strength	471	0	0	0		471	
	M25/20,&M30/20	Slump test	75	0	0	0		75	

SECONDARY TOWNS INTEGRATED URBAN ENVIRONMENTAL IMPROVEMENT PROJECT

BIRATNAGAR Sub-Metropolitant City — **STIUEIP**

Monthly Laboratory Testing Report

(For The Month Of JANUARY 2018)

Consultants:SMEC-Brisbane-AQUA-CEMAT-BDA — **Contractors: CTCE- KALIKA J/V**

S. No.	Description of Material	Type of test	Total No. of Test upto previous month	Test Performed for this month				Total No. of Test upto This month	Remarks
				No. of Tests	Passed	Failed	Retest Recommended		
7	CEMENT Required Test								
8	OPC Cement	Setting time	414	10	10	0		424	
		Normal Consistency	414	10	10	0		424	
	CONCRETE								
	Work Mix Test M15,M20,M25,M30	Compressive strength	14979	60	60	0		15039	
9	REINFORCEMENT	Required Test							
	Reinforcement tore steel	As per Specifacation	80	1	1	0		81	
10	PAVEMENT MATERIALS								
	Sub Base Materials	Sieve analysis	313	0	0	0		313	
		MDD & OMC	63	0	0	0		63	
		CBR	69	0	0	0		69	
		Field density	493	0	0	0		493	
11	CS Base	Sieve analysis	142	0	0	0		142	
	Crushed Stone Base	MDD & OMC	14	0	0	0		14	
	Material Laying	C.B.R	35	0	0	0		35	
		FI & C.Ratio	136	0	0	0		136	
		LAA	122	0	0	0		122	
		SSS	64	0	0	0		64	
		AIV	136	0	0	0		136	
		Field Density & OMC	197	0	0	0		197	

SECONDARY TOWNS INTEGRATED URBAN ENVIRONMENTAL IMPROVEMENT PROJECT

BIRATNAGAR Sub-Metropolitant City

STIUEIP

Monthly Laboratory Testing Report

(For The Month Of-JANUARY 2018)

Consultants:SMEC-Brisbane-AQUA-CEMAT-BDA

Contractors: CTCE- KALIKA J/V

S. No.	Description of Material	Type of test	Total No. of Test upto previous month	Test Performed for this month				Total No. of Test upto This month	Remarks
				No. of Tests	Passed	Failed	Retest Recommended		
12	ASHPHALT CONCRETE	Sieve analysis	39	0	0	0		39	
	Combine Mixed	FI	24	0	0	0		24	
		ACV	24	0	0	0		24	
	Individual Ca&FA Test Mix Design	LAA	24	0	0	0		24	
		Sp gravity	4	0	0	0		4	
		S.S.S	39	4	4	0		43	
13	BITUMEN TEST	Penetration at25.c	3	1	1	0		4	
	80/100 Bitumen	Softeing point(ring ball)	3	1	1	0		4	
	As per DORbook section	Flash point/Fire Point	3	1	1	0		4	
	600 Table 6.14/is 73	Ductility at25.c	3	1	1	0		4	
		Specific at 25.c	3	1	1	0		4	
		Water Content	3	1	1	0		4	
		Loss on Heating for 5 hrs	3	1	1	0		4	
		Pen-of residue afte loss on Heating	3	1	1	0		4	
		Solubility in tricloroethylene	3	1	1	0		4	
14	Humpipe Test	Three Edge Bearing Load Test	7	0	0	0		7	200mm to 1600mm 1 each
15	MARSHALL MIX DESIGN	WEARING COURSE	1	1	1	0		2	
16	Marshall Stability Test	Bulk density	102	6	6	0		108	
		Stability	102	6	6	0		108	
		Flow	102	6	6	0		108	
		Air voides	102	6	6	0		108	

SECONDARY TOWNS INTEGRATED URBAN ENVIRONMENTAL IMPROVEMENT PROJECT

BIRATNAGAR Sub-Metropolitant City

Monthly Laboratory Testing Report

STIUEIP

(For The Month OF JANUARY 2018)

Consultants:SMEC-Brisbane-AQUA-CEMAT-BDA **Contractors: CTCE- KALIKA J/V**

S. No.	Description of Material	Type of test	Total No. of Test upto previous month	Test Performed for this month				Total No. of Test upto This month	Remarks
				No. of Tests	Passed	Failed	Retest Recommended		
		Bitumen extraction	36	2	2	0		38	
		Voids in Mineral Agg	102	6	6	0		108	
		Job mix in AC Plant	64	6	6	0		70	
17	BITUMEN SPREAD TEST								
	Prime coat	Application rate	51	6	6	0		57	
	Tack coat	Application rate	38	6	6	0		44	
18	Machines/Equipment								
	Caliberation of compressive Testing machine	1000KN Manuall	3	0	0	0		2	
		500 KN Manuall	3	0	0	0		2	
	C.B.R Machine	50KN/30KN	2	0	0	0		2	
	Marshall Stability Machine	50KN/25KN	2	0	0	0		2	
19	MISCELLANEOUS								
	G.I Wire(Gabion Boxes)		5	0	0	0		5	
	Factory Test Report of Cement		8	1	1	0		8	
	Factory Test Report of Iron Steel		34	1	1	0		35	
	Factory Test Report of 80/100 Bitumen		2	0	0	0		2	
	Factory Test Report of UPVC/HDP Pipe		2	0	0	0		2	
	UPVC/HDP Pipe Test Result		2	0	0	0		2	
	Admixture & Carbon steel Fiber		1	2	2	0		3	

MDD/OMC = Max Dry Dennsity
Optimum Moisture Content
SSS = Sodium Sulphate Soundness
ACV = Aggregtae Crushing Value
CBR=California Bearing Ratio

LAA = Los Angeles Abrasion
SE=Sand Equivqlent
AIV=Aggregate Impact Value
JMC=Job Mix Formula
C.R=Crushing Ratio

SMEC-Brisbane-AQUA-BDA-CEMAT
Approved by C.S.E
Checked by A.C.S.E
Consultant Reps

CTCE-KALIKA J/V
Submitted by Project Manager
Prepaid by Q.C Manager
Contractors Reps

Secondary Town Integrated Urban Environmental Improvement Project

Biratnagar Sub-Metropolitan city

Contract Package: STIUEIP/W/BRT/ICB-01

DAILY WEATHER RECORD

FOR THE MONTH OF JANUARY 2018

Date	WEATHER Record						Temp.c			
	Sunny	Foggy	Cloudy	Morning Rain HRS	Night Rain Hrs.	Day Rain Hrs.	9:00 AM	5:00 PM	Rain Fall MM	
1		Foggy					18	14		
2		Foggy					17	14		
3		Foggy					12	10		
4		Foggy					8	6		
5		Foggy					14	10		
6		Foggy					12	8		
7		Foggy					14	10		
8		Foggy					12	10		
9		Foggy					8	6		
10		Foggy					8	7		
11		Foggy					10	8		
12		Foggy					12	10		
13		Foggy					14	10		
14		Foggy					15	10		
15		Foggy					16	14		
16		Foggy					17	15		
17		Foggy					18	15		
18		Foggy					18	14		
19		Foggy					17	14		
20		Foggy					18	16		
21		Foggy					18	16		
22		Foggy					18	16		
23	Sunny						20	17		
24	Sunny						21	18		
25	Sunny						19	16		
26	Sunny						20	16		
27	Sunny						21	17		
28		Foggy					20	18		
29		Foggy					21	18		
30		Foggy					20	17		
31		Foggy					21	18		

Approved By C.S.E Record Checked By ~~Junior Engineer~~/ACSE Consultant Reps	SMEC-Brisbane-AQUA-CEMAT-BDA
Submitted By Project Manager Record Reported By Q.C Manager Contractor Reps	CTCE-KALIKA

Secondary Towns Integrated Uraban Environmental Improvement Project

Biratnagar Sub-Metropolitant City

TEST RESULT SUMMARY SHEET For the Month of JANUARY ~~2017~~ 2018

COMPRESSIVE STRENGTH OF BRICKS (Process Control Test) P.G-1

SN No	Ref. STIUEIP LAB/	Date of Testing	Location	Chanage	BRAND NAME 1 st class brick	Compressive Strength N/mm2	SCALE OF Sample From
1	627	4/1/2018	R-6	Brick Man Hole	AMBEY	10.3	
2	628	5/1/2018	R-6	Brick Man Hole	AMBEY	10.1	
3	629	11/1/2018	R-26 Line	Brick Drainage	AMBEY	10.4	
4	630	11/1/2018	R-26 Line	Brick Drainage	AMBEY	10.5	
5	631	20/1/2018	B-2 Line	Brick Drainage	AMBEY	10.1	
6	632	22/1/2018	B-2 Line	Brick Drainage	AMBEY	10.2	
7	633	27/1/2018	B-2 Line	Brick Drainage	AMBEY	10.5	
8	634	27/1/2018	B-2 Line	Brick Drainage	AMBEY	10.5	
9	635	27/1/2018	R-26 Line	Brick Drainage	AMBEY	10.4	
10	636	27/1/2018	R-26 Line	Brick Drainage	AMBEY	10.1	
Specification					IS1077,IS2180or NS1/2035	> 10N/MM2	

SMEC-Brisbane-AQUA-BDA-CEMAT

Approved by Construction Supervision Engineer

Test Checked by ~~Junior Engineer~~ A.C.S.E.

Consultantr Reps

CTCE-KALIKA J/V

Submitted by Project Manager

Test conducted by Q.C Manager

Contractor Reps

SECONDARY TOWNS INTEGRATED URABAN ENVIRONMENTAL IMPROVEMENT PROJECT

Biratnagar Sub-Metropolitant City P.G-1

Summary of Concrete Crushed Aggregate 20mm down For The Month of January ~~2017~~ 2018

S.N.	DESCRIPTION / SOURCE	LAB REF. NO.	Grain Size Distribution				FI %	LAA %	ACV %	REMARKS
			25	20	10	4.75				
1	From Contractor Yard	519	100	96.90	39.65	6.52	13.31	33.88	21.4	Aggregates
2	From Contractor Yard	520	100	96.25	38.08	4.21	13.27	33.28	22.0	Source
3	From Contractor Yard	521	100	96.52	34.72	5.50	13.64	33.44	22.4	Om shree
4	From B-2 Line DPS to North Side	522	100	95.98	35.20	6.10	13.46	34.12	22.6	CRUSHER
5	From B-2 Line DPS to North Side	523	100	96.76	35.88	5.25	13.01	34.28	22.9	
6	From B-2 Line DPS to North Side	524	100	97.14	34.79	5.13	12.97	34.24	22.8	PLANT
7	From B-2 Line DPS to North Side	525	100	97.14	35.34	5.33	13.05	34.20	22.6	
8	From R-26 Line	526	100	96.46	33.44	4.26	13.15	34.44	22.6	
9	From R-6 Line	527	100	96.47	34.97	4.18	12.56	32.40	22.0	
10	From A-1 Line	528	100	96.92	45.04	5.09	12.96	32.12	23.1	
11	From A-1 Line	529	100	96.67	40.43	5.05	13.22	34.40	22.7	
12	WWTP Slum Well	530	100	96.72	38.39	4.55	13.04	34.16	22.9	
13	WWTP Slum Well	531	100	97.09	38.21	5.21	12.93	34.40	23.1	
Section 900:IS 383-1970 Required			100	95-100	25-55	0-10	Less 15%	Less 35%	Less 30%	

SMEC-Brisbane-AQUA-CEMAT-BDA
Approved by CSE
Test Checked by ~~Junior Engineer~~/A.C.S.E
Consultant Reps

CTCE-KALIKA J/V
Submitted by Project Manager
Test conducted by Q.C Manager
Contractor Reps

SECONDARY TOWNS INTEGRATED URABAN ENVIRONMENTAL IMPROVEMENT PROJECT

Biratnagar Sub-Metropolitant City

Summary of Fine Concrete Aggregates Sand FOR THE MONTH OF January 2018

S.N.	DESCRIPTION / SOURCE	LAB REF. NO:	Grain Siza Distribution							REMARKS
			10	4.75	2.36	1.18	0.6	0.3	0.15	
1	From Contractor Yard	519	100.00	93.20	81.20	62.80	44.00	20.00	5.60	source
2	From Contractor Yard	520	100.00	92.00	79.60	61.60	42.40	19.60	6.00	om shree
3	From Contractor Yard	521	100.00	92.80	79.60	61.20	41.20	20.00	6.80	Crusher Plant
4	From Contractor Yard	522	100.00	94.00	85.20	63.60	44.40	20.00	5.60	Chisang Morang
5	From Contractor Yard	523	100.00	94.78	86.35	65.06	45.38	19.68	6.02	
6	From Contractor Yard	524	100.00	92.80	84.00	62.40	42.40	18.00	6.40	
7	From Contractor Yard	525	100.00	93.60	84.40	60.40	40.00	16.40	5.20	
8	From B-2 Line	526	100.00	91.60	81.20	58.40	39.60	16.40	4.40	
9	From WWTP Yard	527	100.00	94.00	85.60	66.40	45.60	22.00	6.00	
10	From WWTP Yard	528	100.00	94.80	86.00	67.60	46.40	22.40	6.80	
11	From WWTP Yard	529	100.00	95.60	86.40	66.80	46.00	21.60	6.80	
12	From WWTP Yard	530	100.00	96.40	86.40	66.00	42.80	18.80	5.60	
Specifacation Limit is 383-1970 Zone -2			100-100	90-100	75-100	55-90	35-59	8 to 30	0-10	

SMEC-BRISBANE-AQUA-CEMAT-BDA
Approved by C.S.E
Test Checked by A.C.S.E/J.E/R
Consultant Reps

CTCE-KALIKA J/V
Submitted by Project Manager
Test Conducted by Q.C Manager
Contractor Reps

SECONDARY TOWNS INTEGRATED URABAN ENVIRONMENTAL IMPROVEMENT PROJECT

BiratnagarSub-Metropolitant City

CEMENT TEST SUMMERY

For the Month of January 2018

S.N.	Lab. Ref. NO.	Description of cement	Testing Date	Consistency & Setting Time			Remarks
				Norm. Const.	Intial(min.)	Final(min.)	
1	MR 411	SHIVAM OPC	4/1/2018	38.1	170	270	From R-26 Line
2	MR 412	SHIVAM OPC	5/1/2018	37.9	175	280	From R-26 Line
3	MR413	SHIVAM OPC	8/1/2018	37.7	165	285	From R-6 Line
4	MR 414	SHIVAM OPC	10/1/2018	37.9	160	280	From R-6 Line
5	MR 415	SHIVAM OPC	12/1/2018	38.3	140	270	From R-6 Line
6	MR 416	SHIVAM OPC	16/1/2018	38.4	145	280	From B-2 Line
7	MR 417	SHIVAM OPC	19/1/2018	38.7	155	285	From B-2 Line
8	MR 418	SHIVAM OPC	21/1/2018	38.9	145	300	WWTP Slum Well
9	MR 419	SHIVAM OPC	22/1/2018	38.7	150	310	WWTP Slum Well
10	MR 420	SHIVAM OPC	25/1/2018	38.3	160	315	WWTP Slum Well
Requirements in accordance with BS 12					> 45 Min.	10 Hrs (600 minute)	

SMCE-Brisbane-AQUA-BDA	CTCE-KALIKA J/V
Approved by C.S.E	Submitted by Project Manager
Test Checked by A.C.S.E/ J.E/R	Test Conducted by Q.C Manager
Consultant Reps	Contractores Reps

SECONDARY TOWNS INTEGRATED URABAN ENVIRONMENTAL IMPROVEMENT PROJECT

Biratnagar Sub-Metropolitant City

SUMMARY OF CUBE COMPRESSIVE STRENGTH TEST M20/20 , M25/20 & M30/20 Work Mix

FOR THE MONTH OF JANUARY 2018

P.G-1

S.N.	Lab Ref No.	Date of Casting	Deatails of Mix	Location / Structure	Ratio by Volume				Type of Material		Cube Crushing ,N/mm2		Remarks
					water	Cement	Sand	Aggregates	Cement Brand	Aggregate/Sand	7 days	28-Days	
1	905	16/12/2017	M20 Work Mix	R-6 Line Shai Marga	0.50	1	2	3.5	Shivam	Om shree C/plant	14.37	20.22	
2	906	16/12/2017	M20 Work Mix	R-26 Line	0.50	1	2	3.5	Shivam	Om shree C/plant	14.52	20.37	
3	907	16/12/2017	M20 Work Mix	R-26 Line	0.50	1	2	3.5	Shivam	Om shree C/plant	14.67	20.44	
4	908	17/12/2017	M20 Work Mix	R-6 Line Shai Marga	0.50	1	2	3.5	Shivam	Om shree C/plant	14.00	20.15	
5	909	18/12/2017	M20 Work Mix	A-1 Line	0.50	1	2	3.5	Shivam	Om shree C/plant	14.07	20.59	
6	910	19/12/2017	M20 Work Mix	A-1 Line	0.50	1	2	3.5	Shivam	Om shree C/plant	14.22	20.52	
7	911	19/12/2017	M20 Work Mix	R-6 Line Shai Marga	0.50	1	2	3.5	Shivam	Om shree C/plant	14.07	20.81	
8	912	21/12/2017	M20 Work Mix	B-2 Line DPS North Side	0.50	1	2	3.5	Shivam	Om shree C/plant	14.44	20.96	
9	913	22/12/2017	M20 Work Mix	S-9 RCC	0.50	1	2	3.5	Shivam	Om shree C/plant	14.37	21.26	
10	914	22/1/2018	M30 Work Mix	WWTP Slum Well Rcc Bottom	0.32	1	1	2	Shivam	Om shree C/plant	24.96	Remain	Acceleratar 150ml per bag
11	915	22/1/2018	M30 Work Mix	WWTP Slum Well Rcc Bottom	0.32	1	1	2	Shivam	Om shree C/plant	25.04	Remain	Plasticizer 700ml per bag
12	916	24/1/2018	M25 Work Mix	A-1 Line	0.50	1	2	3.5	Shivam	Om shree C/plant	15.85	Remain	
										Min Required	13.4	20	
										Min Required	16.75	25	
										Min Required	20.1	30	

SMEC-Brisbane-AQUA-BDA
Approved by Construction Supervision Engineer/CSE
Test checked by ~~Junior Engineer~~/A.C.S.E
Consultants Reps

CTCE-KALIKA J/V
Submitted by Project Manager
Test conducted by Q.C Manager
Contractors Reps

Secondary Towns Integrated Uraban Environmental Improvement Project

Biratnagar Sub-Metropolitant City

SUMMARY OF ASPHALT CONCRETE WEARING COURSE COMBINED TEST RESULTS

Contract Package:STUEIP/W/BRT/ICB/01

S. No.	LAB REF. NO.	Date of Sampling	Location of Work	Mix Agg Gradation of HMP Running % Passing Sieve Sizes mm							FI	LAA	ACV	SSS
				20	16	9.5	4.75	2.36	0.600	0.075	%	%	%	%
1	31	13/1/2018	HMP Running Bin- Plant	100	100.00	79.92	56.67	34.17	18.3	6.98	13.78	34.08	18.3	3.20
2	32	13/1/2018	HMP Running Bin- Plant	100	100.00	78.56	55.55	34.11	18.4	6.87	13.39	33.80	18.70	3.40
3	33	20/1/2018	HMP Running Bin- Plant	100	100.00	77.71	55.83	35.82	17.99	6.80	13.26	33.08	19.00	3.00
4	34	20/1/2018	HMP Running Bin- Plant	100	100.00	78.00	56.16	36.47	18.51	6.79	13.63	33.48	19.00	2.40
Specification Limits				100-100	100-100	76-82	54-59	33-37	16-19	6 to 9	LESS 25%	LESS 40%	LESS 20%	MAX 12%

SMEC-Brisbane-AQUA-CEMAT-BDA

Approved by C.S.E

Test Checked by A.C.S.E

Consultant Reps

CTCE-KALIKA J/V

Submitted by Project Manager

Test Conducted by Q.C Manager

Contractor Reps

Secondary Towns Integrated Uraban Environmental Improvement Project

Biratnagar Sub-Metropolitant City

SUMMARY OF HOT MIX ASPHALT CONCRETE WEARING COURSE TEST RESULTS

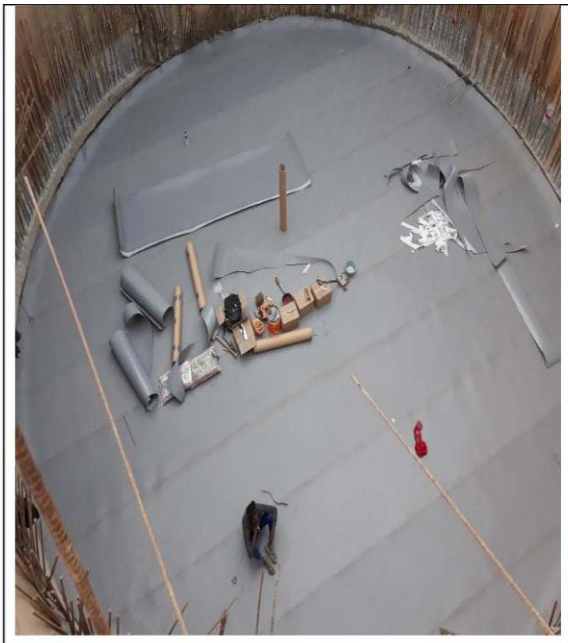
Contract Package:STUEIP/W/BRT/ICB/01

MONTH:JANUARY 2018

S. No.	LAB REF. NO.	Date of Laying	Location of Work ch:	Mix Agg Gradation % Passing Sieve Sizes mm							PRIME COAT Application		TACKCOAT Application		Bitumen Content From Extraction Test %	Mix Density gm/cc	Air Voids %	VMA %	Stability N	Flow mm
				20	16	9.5	4.75	2.36	0.6	0.08	Dist. Spray Rate Lit/m2	Avg.Tray Spray Rate Lit/m2	Dist. Spray Rate Lit/m2	Avg.Tray Spray Rate Lit/m2						
1	31	13/1/2018	0+000 to 0+118 WWTP inner Road	100	100.00	79.88	56.70	34.25	18.37	7.04	1.01	1.01	0.48	0.45	5.55	2.369	2.42	15.25	11709	2.32
2	32	17/1/2017	0+000 to 0+080,,0+118 to 0+220WWTP inner road	100	100.00	78.83	55.12	32.68	16.60	6.44	1.01	1.00	0.56	0.59	5.55	2.368	2.47	15.29	11736	2.25
Specifacations				100	100-100	76-82	54-59	33-37	16-19	6 to 9	1.0 kg/m2 ± 5%		0-4 to 0-6 Kg/m2		5-6	Min-2.365	2-4%	≥ 15	≥ 8000	2-3

Remarks:

SMEC-Brisbane-AQUA-CEMAT-BDA	CTCE-KALIKA J/V
Approved by C.S.E	Submitted by Project Manager
Test Checked by A.C.S.E	Test Conducted by Q.C Manager
Consultant Reps	Contractor Reps



Laying of Membrane at Sump well

Curing at R-6

B2 – brick work

Shifting of Electric Pole

Contractor: CTCE-KALIKA J.V.
Site Office: Katahari, Judi

Pipe Joining for water supply

Pipe laying at R6

Bio-Engineering Work at WWTP

Water Supply Maintenance Work

Contractor: CTCE-KALIKA J.V.
Site Office: Katahari, Judi