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 (March, 2015)

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

7 April 2015

Biratnagar Sub-Metropolitan City, Nepal

AUSTRALIA | ASIA | MIDDLE EAST | AFRICA | PACIFIC

Project Name:	Secondary Towns Integrated Urban Environmental Improvement Project (STIUEIP)
Project Number:	56064023
Report for:	Biratnagar Sub Metropolitan City, Nepal

PREPARATION, REVIEW and AUTHORISATION

Revision	Date	Prepared by	Reviewed by	Approved for Issue by
	7 April 2015	DSC		

ISSUE REGISTER

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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

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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 Sub-Metropolitan City
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 Sub-Metropolitan City
Consultant	SMEC in association with Brisbane/AQUA/BDA/CEMAT
Contractor	CTCE-KALIKA Joint Venture
Date of Commencement	8tth December, 2013
Date of Completion	25th May, 2016
Contract Period	900 days from date of commencement
Time elapsed till **March** 2015	479 days from date of commencement (**53.2%)**
Contract amount with Provisional Sum	NRs. 2,119,054,525.90
Add 13%VAT	NRs. 272,278,000.00
Variation Order No 1 with 13% VAT	NRs 99,753,075.60
Total Contract Amount with VAT & PS	NRs. 2,491,085,601.50
Paid Amount of IPC 01	NRs. 209,400,000.00 (Mobilization Advance Payment)
Paid Amount of IPC 08	**NRs. 115,297,549.23**
Total Paid Amount from IPC 01 to IPC 08	**NRs. 626,112,219.22**

2 INTRODUCTION / BACKGROUND

1. 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 December, 2014 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.

2. 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 Town 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.

3. 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
   - Contractor's Work Program approved on 10 February 2014
   - Contractor's Work Program (Revision 02) under review 05 December 2014

3. SUB-PROJECT COMPONENTS

3.1 Sewer Lines

4. The prioritized sewer lines for Final Detailed Engineering Report of BSMC are as follows:

Table 1: Proposed Sewer Lines in BSMC

S N.	Description	Unit	Quantity
1	**Sewerage Pipe Supply and Installation**		**62,835.0**
	Reinforced Concrete Pipe laying and jointing		**15,748.0**
	Line T1 (Secondary Line T2 (Trunk)	m m	3,788.0 7,506.0
	Line T3 (Trunk)	m	4,136.0
	Line T4 (Secondary)	m	318.0
	HDPE laying and jointing		**47,087.0**
	Line T1 (Secondary	m	7,124.0
	Line T2 (Trunk)	m	19,410.0
	Line T3 (Trunk)	m	18,341.0
	Line T4 (Secondary)	m	22,12.0
2	**Manhole (Brick / RCC)**	**no.**	**2,019**
3	**Sewer Inlet**	**no.**	**3,766.00**
4	House connection	no.	5,930.00
5	Reinstatement of Roads	km	64.50

3.2 Storm Water Drains

5. 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 BSMC

S. No.	Description	Unit	Quantity
A	**Storm Drain for Northern Parts**		**39,379.00**
I	Storm Drain Lines	m	**25,388**
II	Culvert	no	41
III	Outfall	no	15
IV	House Connection Chamber	no	5,930
V	Rain Inlet	no	30
VI	Manhole	no	30
VII	Canal Crossing	no	11

B	**Storm Drain for Southern Part**		
I	Brick Masonry Drain	m	**13,991**
II	Cleaning and Maintenance of Existing Drain	m	7,273
III	Culverts	no	38
C	**Rehabilitation of Existing Drain**		
I	Drain Cover	m	30,467
II	Cleaning and Maintenance of Existing Drain	m	33,601

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3.3 Waste Water Treatment Plants

6. 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 in filtration 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 areas is estimated at 650.08LPS. The maximum quantity of the waste water for Phase I areas only is estimated at 213.97 LPS. The capacity of the Phase I WWTP has been adopted as 214LPS. The capacity of the Phase II WWTP will be thus 436LPS. Features of WWTP at Jatuwa are as follows:

Table 3: Proposed Waste Water Components in BSMC

S.N.	Description	Unit	No
	Waste Water Treatment Plant Component		
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	sqm	99,915
24	Site clearance, grubbing, surface dressing	sqm	99,915
25	Road and Drain Improvement	m	1,440
26	River training works	m	600
27	Electro mechanical works	Set	1
28	Lab Equipment and installation	Set	1

3.4 Roads and Lanes

7. Most of the roads / lanes in Biratnagar are in a poor state due to lack of periodic maintenance, and need improvement, whereas 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. Almost necessary streets are already constructed and hence the Project has considered on design based on reinstatement, rehabilitation and upgrading of existing roads and lanes.

Table 4: Proposed Roads in BSMC

Description of Item	Quantity
Main Road Improvements (Road from Puspalal Chowk to Bhatta Chowk)	2.5 Km
Reinstatement and Road Improvements (under sewer line installation)	62.0 Km

3.5 Environmental Aspect

8. The project is environmental improvement project and mainly constitutes works on sewerage and drainage improvement works in BSMC besides others. As per ADB guidelines on Environmental Assessment requirements, this project is classified as Environment Category B. According to Environmental Protection Guidelines, 2054BS, First Revised (2055BS) schedule-3, IEE is required for Operations of Sewerage Schemes under Schedule 1.h.2.e (pertaining to Rule 3). The final report on IEE was submitted and MUD had approved the IEE on May14, 2013.

9. 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.

10. DSC has prepared and submitted Environmental Progress Reports (Quarterly) July-September 2014 and October – December 2014 on 15 February 2015.

3.6 Social Aspect

11. Secondary Towns Integrated Urban Environmental Improvement Project (STIUEIP) in Biratnagar has been commenced from 2010 for improving 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 Sub-metropolitan City (BSMC). Besides of this, various social development programs and activities are executing through community development and institutional strengthening components which are other two objective focused components of STIUEIP Biratnagar.

As usual in previous months, Design and Supervision Consultant (DSC)/STIUEIP assisted Project Implementation Unit (PIU) in effective implementation of social activities as and when necessary during March 2015. The Due Diligence Report of the project has been prepared and submitted in this month. Monitoring of ongoing social development activities and consultation meetings with community people are the general tasks that has being 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 DSC. The fifth meeting of

safeguard desk held in this month. The meeting decided to address the demands of people in ward no. 18, Jatuwa, BSMC through community development program (CDP) component of the project. Social Development Specialist (SDS) of DSC had visited communities together with PIU and NGO to observe people's demand, consult with people and assess its feasibility. Apart from it, many formal and informal meetings had taken place during this month.

The regular monitoring visits have provided insights of the social development aspects of the project to the DSC. The community development programs are continuing through the Tole Lane Organizations (TLOs) that are almost 119 numbers in 17 wards of BSMC. Prior to the start of such community development activities, DSC has analyzed the data of poor and disadvantaged groups (DAGs) living in the various tole/ clusters identified by the poverty mapping applying participatory tools. Based on the poverty indicators, all details has 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 is consisted with meetings, orientation, awareness activities, skill development trainings and health, hygiene and sanitation activities which are conducted and organized by the NGO (FriPAD).

12. DSC has prepared minutes of meeting No 5, please refer to **Annex-6.**

3.7 Financial Plan

13. 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.

3.8 Disbursement Records in Construction

Table 5: Disbursement Record in Construction to Date

S.N.	Description of Payment	Payment Items	Amount in NRs.
1	M/S Prabidhi International	Ditch Cleaning Equipment	3,300,000.00
2	M/S CTCE-Kalika JV	IPC 01	209,400,000.00
3	M/S CTCE-Kalika JV	IPC 02	27,853,500.98
4	M/S CTCE-Kalika JV	IPC 03	47,507,270.95
5	M/S CTCE-Kalika JV	IPC 04	42,241,392.52
6	M/S CTCE-Kalika JV	IPC 05	22,035,291.99
7	M/S CTCE-Kalika JV	IPC 06	85,573,541.38
8	M/S CTCE-Kalika JV	IPC 07	76,203,672.17
9	M/S CTCE-Kalika JV	IPC-08	115,297549.23
		Total in NRs.	626,112,219.22

4. OBJECTIVES AND SCOPE OF WORKS

4.1 Objectives

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

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

15. 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

16. 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

17. The Contractor has not met the target set for storm water drain construction in this month. The works had been affected by less effort observed during this month.

5.2 Sewer Lines

18. The Contractor has submitted to the Consultant monthly programs of March and April 2015 for the sewer line works. The Contractor has completed 7.5 km sewer line with HDPE pipes and RCC pipes. The construction of manhole, sewer inlets and house connection chambers are in progress.

    The proposal of the precast concrete manholes, sewer inlets and house connection chambers has been submitted for review and approval. A conditional approval in consultation with the Employer has been given to the Contractor to prepare few numbers and to demonstrate at site. If 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, then the Consultant will release for unconditional approval.

    Recently, the precast concrete house connection chambers, sewer inlets and manholes are being installed at sites and found to be effective and we are able to open traffic at the shortest possible time and especially where the business center with crowds (in R5 and R65 Roads) are 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 unconditional approval to proceed with production of precast units will be granted within couple of weeks.

5.3 Wastewater Treatment Plant

19. Office cum laboratory building, workshop building and generator / changing house at WWTP, Jatuwa are ongoing at final and finishing stage. The doors and windows are complete. Excavation of anaerobic ponds (3 nos) and facultative ponds (2 nos) had been already done. One of the facultative pond has to be excavated. The contractor is planning to start the remaining works of WWTP in the coming month. The Contractor has started excavation for sump well but disturbed due to unexpected rain in last week of the month.

5.4 Road and Lanes Improvement Works

20. The Contractor has completed the rehabilitation / repair of existing drain of about 6 km in R2 road. The Contractor has shifted more than 35 numbers of electrical poles. The shifting of the pole is scheduled to be completed by 28th Chaitra 2071 (11 April 2015). The installation of Kerbs for footpath in is progress.

    The sub-grade preparation for widening portion had started but now it is stopped to relocate the water supply pipe network from Mangadh Water Supply Project needs to shift and it is also scheduled to be completed by 28th Chaitra 2071(11 April 2015).

5.5 Construction Materials

21. The contractor has stocked sufficient construction materials like coarse aggregates, fine aggregates, cement, reinforcement etc at his yard, Katahari. The fabrication of steel moulds for precast units- manholes, sewer inlets and house connection chamber are in progress.

5.6 Construction Material Testing Lab

22. Construction material testing laboratory has been set up at the Contractor's camp at Katahari. The validity of calibration of Lab equipment was until February 2015. Now the Contractor has requested the Nepal Bureau of Standards and Metrology for calibration of the proving rings of different compressive machines and CBR machine. The calibration was done on 2 March 2015 and certified by Nepal Bureau of Standard and Metrology, Kathmandu, Nepal.

    The two samples of bitumen, one from Iranian Company and another from Bharat Petroleum Limited had been sent to the Department of Nepal Bureau of Standard and Metrology, Kathmandu for testing and results for both samples are found to be satisfactory and are within our Technical Specification. Hence, both products can be used.

    Necessary suitability and routine tests for construction materials are being carried out in regular basis.

5.7 Physical Progress till end of March 2015

23. The total physical progress achieved till 31 March 2015 is about 22 % whereas the cumulative planned progress till February 2015 is 37%. The progress of the work is lagging behind by 15% compared to the planned works till end of March 2015(based on work scheduled Rev 02).

Table 6: Plan Vs Actual Progress till March 2015

Plan Vs Progress									
Month	**Sep-14**	**Oct-14**	**Nov-14**	**Dec-14**	**Jan-15**	**Feb-15**	**Mar-15**	**Apr-15**	**May-15**
Planned Work (%) Rev 01	0.576	1.416	8.074	9.81	9.883	10.666	10.056	9.725	9.865
Cumulative Planned work (%)	**17.098**	**18.514**	**26.588**	36.398	46.281	56.947	67.003	76.728	86.593
Planned Work (%) Rev 02				4.76	6.07	8.63	8.478	7.724	6.654
Cumulative Planned work (%)				**14.04**	**20.11**	**28.74**	**37.2180**	**44.94**	**51.60**
Actual achievement (%)	0.421	0.169	3.305	1.48	1.80	5.00	4.25		
Cumulative Actual Achievement (%)	**5.81**	**5.98**	**9.29**	**10.77**	**12.57**	**17.57**	**21.82**		
Progress to date wrt the revised work plan (%)		(12.53)	(17.30)	(3.27)	(7.54)	(11.17)	(15.40)		

The contractor is lagging behind by 15.4 % in his own program whereas 53 % of the contract period has already been elapsed.

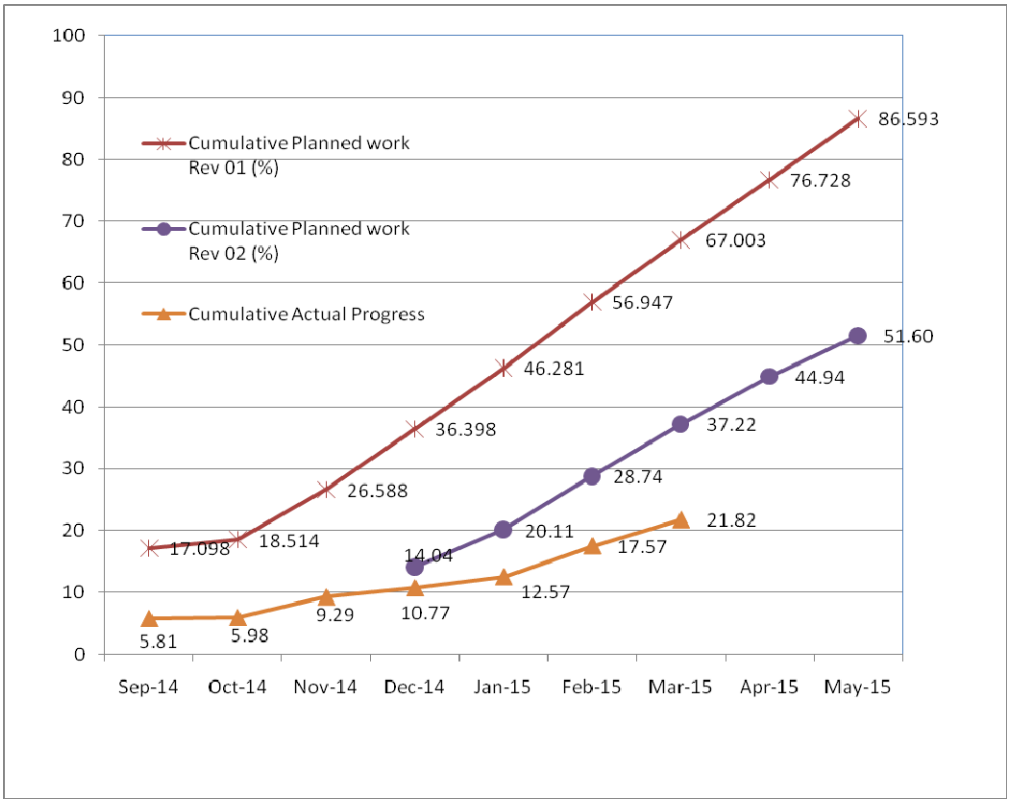


Figure 1: Plan Vs Actual Progress till end of February 2015

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.

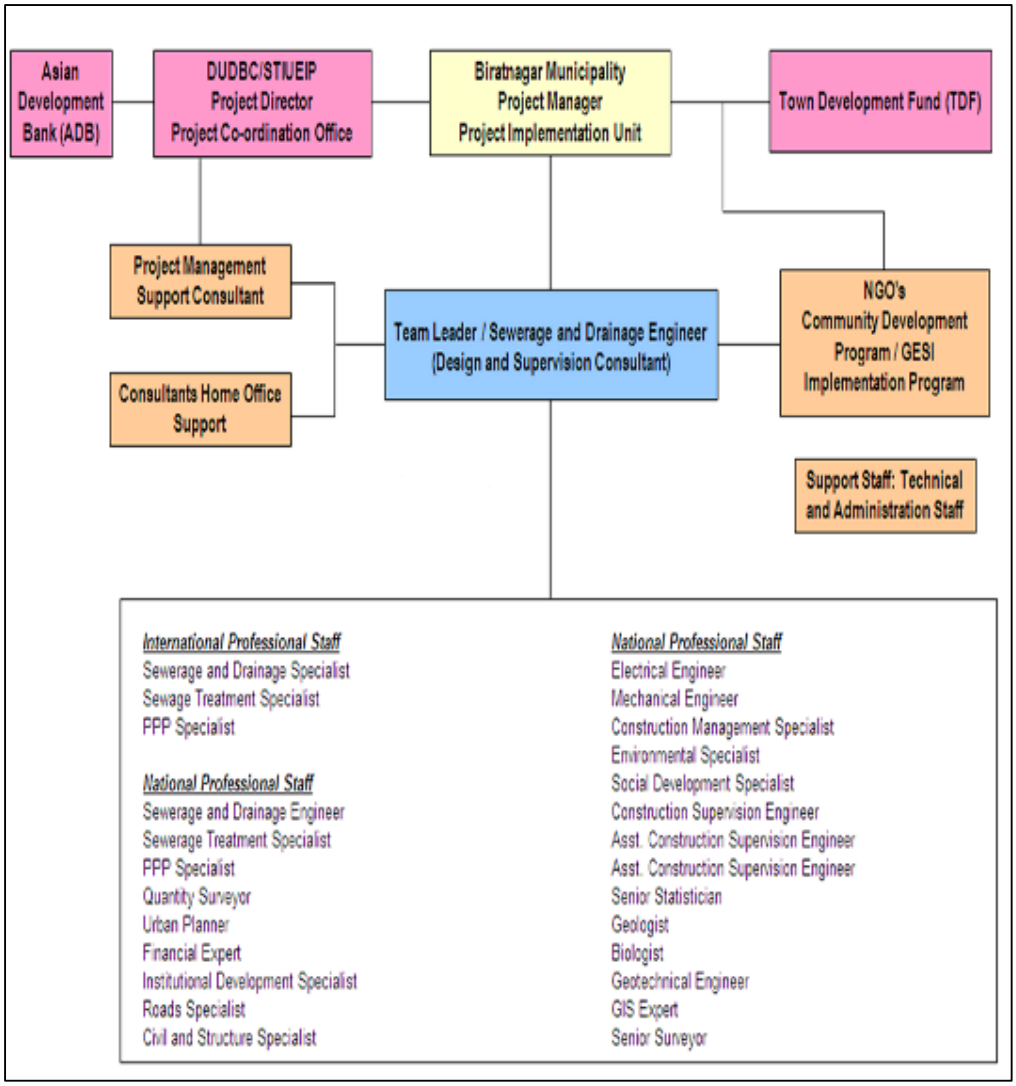


Figure 2: Organization and Staffing of STIUEIP, Biratnagar

6.2 Inception Report

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

6.3 Conceptual Catchment Plan and Design Criteria

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

6.4 Survey

26. The survey was completed in August, 2012

6.5 Design

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

28. 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

29. 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

30. 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.

31. 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.

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

6.8 Final Report

33. 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.

34. The sharing of cost by concerned institutions is as follows

Table 7: Agency-wise Financial Contribution to BSMC

Contributors	Amount (US$)	Amount (NRs.)	%
Government of Nepal (GoN)	5,960,256	524,502,513	16.00%
Asian Development Bank (ADB)	24,213,539	2,130,791,460	65.00%
Biratnagar Sub-Metropolitan City (BSMC)	2,980,128	262,251,257	8.00%
Town Development Fund (TDF)	4,097,676	360,595,478	11.00%

6.9 Consultant's Activities in Construction Phase

35. 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	Mohan Kumar Tuladhar	Team Leader
2	Dil Bahadur Rana	Construction Supervision Engineer
3	Jay Prakash Yadav	Asst. Construction Supervision Engineer-1
4	Bhakta Raj Shakya	Asst. Construction Supervision Engineer-2
5	Bala Ram Mayalu	Social Development Specialist
6	Rajesh Yadav	Junior Engineeer-1
7	Sujan Shrestha	Junior Engineeer-2
8	Gaurab Muni Bajracharya	Junior Engineeer-3
9	Santosh Dahal	Junior Engineeer-4
10	Umesh Bartaula	Office Manager
11	Ramji Gimire	Driver-1
12	Suman Ghimire	Driver-2
13	Ramila Ghimire	Office Assistant

36. 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 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. Prepare Variations Order

xi. Maintain correspondences with the Employer and the Contractor

xii. Assist to PIU

6.10 Key Dates

The consultant has noted the following key dates for the month of February 2015

Table 9: Key dates of events /Activities:

S. No	Date	Activities/Events	Remarks
1	1 March 2015	MPMC meeting at BSMC	
2	11-14 March 2015	Site Visited by Mr. Indu Sharma Dhakal, Contract Management Engineer(ADB, NRM)	
3	18-19 March 2015	Site Visited by Mr. M. R Gelal, Project Director (PD), PCO Mr. Parag Kayastha, Dty. PD,,PCO Mr. Madan Shankar Shrestha, TL, PMSC Meeting with the BSMC/ PIU/DSC and Contractor at BSMC	Economical design of roadside drain to be designed and prepared cost estimate ASAP.
4	20-22 March 2015	Site visited by: Dr. B R Kansakar, Sewage Treatment Specislist Mr. T R Shakya and Mr. CM Ghimire, Road Specialist	Discussion of WWTP with Employer/ DSC and contractor at Contractor's office

5	25- 26 Mar 2015	Mr. Bala Ram Mayalu, Social Development Specialist attended workshop for GESI AP in KTM organized by ADB	

7 DETAILS OF ACTIVITIES CARRIED OUT IN THIS MONTH

7.1 Physical Progress in this month

Table 10: Physical Progress in Storm Water Drains:

Physical Progress till 31st March 2015						
S.N.	Location	Proposed Length (m)	Progress		Total to date (m)	Progress (%)
			Up to Feb 2015 (m)	This Month (m)		
1	B1	3,950.00	2,449.00	1,005.00	3,454.00	87%
2	B2	3,742.00	2,491.00	351.00	2,842.00	76%
3	B3	3,514.00	3,126.00	88.00	3,214.00	91%
4	S5	740.00	-		-	0%
5	S9	3,178.00	588.00	72.00	660.00	21%
6	S11	2,092.00	1,404.00	15.00	1,419.00	68%
7	S13	3,910.00	3,161.00	666.00	3,827.00	98%
8	CN2	2,273.00	750.00	1,023.00	1,773.00	78%
9	CN3	2,170.00	794.00	576.00	1,370.00	63%
10	Rani Area	8,483.00	707.00	105.00	812.00	10%
11	R2 (Rehab)	6,000.00	4,890.00	1,040.00	5,930.00	99%
	Total	**40,052.00**	**17,052.00**		**25,301.00**	63%

Note: There is increment in length of drain in R2 road from Bhatta Chowk to Panitanki, hence total length has been revised from previous monthly progress report.

Table 11: Physical Progress in Sewer Lines:

Physical Progress till 31st March 2015						
S.N.	Location	Proposed Length (m)	Progress		Total to date (m)	Progress (%)
			Up to Feb 2015 (m)	This Month (m)		
1	T1	10,912	-	-		0%
2	T2	27,128	2,463.00	1,397.00	**3,860.00**	14%
3	T3	23,070	1,885.00	1,658.00	**3,543.00**	15%
4	T4	2,530	-	-		0%
	Total	**63,640**	**4,348.00**		**7,403.00**	**12%**

Table 12: Physical Progress in Manholes:

S.N.	Description	Progress		Total to date (No)
		Up to Feb 2015 (No)	This Month (No)	
1	House Connection Chambers	35	0	**35**
2	Sewer Inlet	12	16	**28**
3	Manholes	75	95	**170**

Table 13: Physical Progress in Roads and Lanes: Till 31st March 2015

S.N.	Location	Proposed Length (km)	Progress		Total to date (m)	Progress (%)
			Up to Previous Month (m)	This Month (m)		
1	T1, T2,T3,T4 and R2	65.0	-	0		Installation of Kerbs /drain covers in progress. Sub-grade is in progress
	Total	**65.0**				

Table 14: Physical Progress in Waste Water Component at WWTP, Jatuwa:

S.N.	Location	Description	Completed Items to Date	Progress in %
1	Jatuwa	Excavation of Anaerobic Pond	3 nos	Ongoing
2	Jatuwa	Excavation of Facultative Pond	2 nos	Ongoing
3	Jatuwa	River Training Work	480 m	complete
4	Jatuwa	Boundary Wall	580 m	
5	Jatuwa	Office Cum Lab Building		Electric works completed.
6	Jatuwa	Workshop Building		Electric works completed.
7	Jatuwa	Generator / Changing House		Electric works completed.

Table 15: Physical Progress of Precast Concrete Works:

S.N.	Location	Description	Up to Feb 2015	This Month	Total to date	Remarks
1	Katahari	Precast Slab	19,803	2,200	22,003	Corrected to previous month
2	Katahari	Precuts	3,523	150	3,673	Corrected to previous month
3	Katahari	Kerb Stone	5,812	0	5,812	Corrected to previous month

Table 16: Physical Progress of Hume Pipe (NP3): Production Detail

S.N.	Diameter (mm)	Pipes Required	Up to previous month	This Month	Total to date	Pipes to produce (Balance)	Remarks
1	200		1,562	0	1,562		
2	300		140	0	140		
3	350		110	26	136		
4	400		141	26	167		
5	450		73	16	89		
6	500		163	40	203		
7	600		576	89	665		
8	700		716	111	827		
9	900		184	34	218		
10	1000		434	63	497		
11	1600		185	20	205		
	Total		**4,284**	**425**	**4,709**		

Contractor's Manpower:

Table 17: Contractor's key staffs:

Designation	No	Remarks
Project / Contract Manager	1	
Planning Engineer/Construction Engineer	1	
Construction Engineer	1	
Site Engineers	7	
Quality Control Manager	1	
Office/Bill Engineer	1	
Junior Engineer	13	
Sub Overseers	3	
Safety Manager / Senior Supervisor	1	
Accountant / Office Manager	1	
Lab Assistant	3	
	1	

Store Keeper		
Light Drivers	5	
Machine Operator	5	
Site Supervisor	1	
Other Supporting Staff	22	
Skilled Labour at Site	68	M:60; F:8
Unskilled Labour at Site	174	M:144; F:30

Contractor's Equipment:

Table 18: Contractor's Equipment:

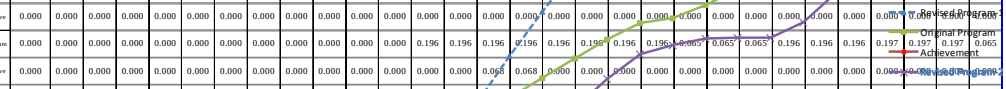
Equipment	No	Remarks
Back Hoe JCB	3	
Loader	3	
Excavator	2	
Excavator with Long Boom	1	
Plate Compactor	2	
Concrete Mixer	5	
Concrete Batching Plant	1	
Kerb Stone Machine	1	
Trailer	1	
Transit Mixer	2	
Water Bowser	2	
Steel Cutter	4	
Dumping Tractor	8	
Monkey Jumper	1	
Needle Vibrator	8	
Tipper	2	
Total Station	1	
Level Machine	6	
Jeep	5	
Motor Bike	10	

7.2 Cumulative Progress (S Curve)

Contractor's Revised Cumulative Progress S-Curve

Contract Amt 2,189,054,525.90

Item No.	Description	Amount (NRs)	Relative Weight in %	Year	2013	Year 2014												Year 2015												Year 2016				
				Month	Dec	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
1	Preliminary and General Works	16,850,000.00	0.795	Program	0.000	0.326	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.119
				Achieve	0.000	0.326	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	Civil Works	1,972,492,008.90	93.08	Program	0.000	0.005	0.508	0.369	0.295	1.811	1.509	0.100	0.384	0.408	0.150	3.293	4.549	5.859	7.607	7.454	7.513	6.078	5.050	1.742	1.503	0.000	0.000	3.366	6.433	9.047	8.446	6.788	2.617	0.000
				Achieve	0.000	0.005	0.508	0.369	0.295	1.811	1.509	0.100	0.384	0.408	0.150	3.293	1.136	1.787	3.661	15.281	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	Electro-mechanical Works	18,884,000.00	0.89	Program	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.365	0.438	0.088	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
				Achieve	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4	Provisional Items and Provisional Sum	63,741,517.00	3.01	Program	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.196	0.196	0.196	0.196	0.196	0.196	0.196	0.065	0.065	0.065	0.196	0.196	0.196	0.197	0.197	0.197	0.065	
				Achieve	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.065	0.068	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5	Operation & Maintenance Equipment and Machinaries	34,450,000.00	1.63	Program	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.813	0.813	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
				Achieve	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6	Laboratary Equipment	6,000,000.00	0.28	Program	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.174	0.109
				Achieve	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7	Operation and Maintenance	6,000,000.00	0.28	Program	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.283
				Achieve	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8	Dayworks	637,000.00	0.03	Program	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
				Achieve	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Total	2,189,054,525.90	100.00																															
Original Program		% age				0.347	0.074	3.181	6.282	7.931	3.017	2.219	1.212	0.476	2.710	3.643	3.662	3.700	4.435	4.401	4.460	4.456	4.401	3.802	1.168	3.018	3.658	4.413	3.645	3.597	4.707	4.728	3.150	2.891	0.616
		Cumulative % age				0.347	0.421	3.601	9.884	17.814	20.831	23.050	24.262	24.738	27.448	31.091	34.754	38.454	42.889	47.290	51.750	56.206	60.607	64.409	65.577	68.595	72.253	76.666	80.310	83.907	88.614	93.342	96.492	99.383	100.00
Revised Program-1		% age				0.005	0.550	0.559	0.521	2.288	6.606	4.806	1.003	0.183	0.576	1.416	8.074	9.810	9.883	10.666	10.056	9.725	9.865	7.445	2.284	0.247	0.159	0.145	0.145	0.145	0.145	0.079	0.601	1.227	0.787
		Cumulative % age				0.005	0.555	1.114	1.635	3.924	10.530	15.336	16.339	16.522	17.098	18.514	26.587	36.397	46.280	56.946	67.002	76.727	86.593	94.037	96.321	96.567	96.726	96.871	97.016	97.161	97.306	97.386	97.986	99.213	100.00
Revised Program-2		% age				0.000	0.331	0.520	0.381	0.307	1.823	1.521	0.113	0.397	0.421	0.162	3.305	4.760	6.070	8.630	8.478	7.724	6.654	5.699	2.040	1.581	0.079	0.079	3.577	6.643	9.257	8.857	7.000	3.002	0.577
		Cumulative % age				0.000	0.331	0.851	1.232	1.540	3.363	4.883	4.996	5.393	5.813	5.975	9.281	14.040	20.110	28.740	37.218	44.942	51.596	57.295	59.335	60.916	60.995	61.074	64.650	71.294	80.551	89.408	96.407	99.410	100.0
Achievement		% age				0.000	0.331	0.520	0.381	0.307	1.823	1.521	0.113	0.397	0.421	0.162	3.305	1.148	3.139	3.742	4.560	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		Cumulative % age				0.000	0.331	0.851	1.232	1.540	3.363	4.883	4.996	5.393	5.813	5.975	9.281	10.429	13.568	17.310	21.870	21.870	21.870	21.870	21.870	21.870	21.870	21.870	21.870	21.870	21.870	21.870	21.870	21.870	21.870



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

8.1 Social Issues

8.1.1 Operational Guidelines for Community Mobilization and Implementation of CDP

- **Visit, Interaction and Consultation with Community People**

37 Social Development Specialist (SDS) of DSC is closely monitoring the social issues that are consequent with the project activities. Visiting and interacting with people, Tole Lane Organisations (TLOs) and formal and informal consultation meetings are ongoing in this regard. In March, a joint meeting with TLOs in ward no. 18, Jatuwa (11 March), observation and consultation in RadhaKrishna Chowk (12 March) and consultation meeting at Janani Marga (17 March) are important to disseminate project features to the community. Monitoring visits with Project Manager (PM), TL/DSC and TL/CDP to the community development program area and construction sites has been beneficial to make insight the project progress, its effectiveness and challenges.

According to the decision made at the 5th meeting of Safeguard Desk on 9 March, an observation visit and meeting with community people has been conducted in 11 March 2015. A team consisted with PIU, CDP and DSC representatives visited the field and consulted with the community people. The main objective of the visit was to assess the people's demand of that area and to consult with people addressing their demands. Regarding of land filling around the temple area, the team with Project Manager/ PIU observed the site and appraise the feasible options.

As the Safeguard Desk meeting has already been decided that the lane improvement tasks are related to community development program (CDP). After the observation visit and consultation meeting, it is decided to address the lane improvement demands of people if it matches the community development criteria being facilitated and implemented by NGO. The team walked throughout the villages of Jatuwa and observed all lanes/roads, around the village. The visiting team suggested to NGO (FriPAD) for detail technical study and construction cost calculation of road/lane improvement of this area.

- **Functional Safeguard Desk**

38 A Safeguard Desk has been established in the project for planning, monitoring and follow up of all social development/ safeguard issues including of resettlement plan. It has been started a functional mechanism consisted with PIU, NGO and DSC for this purpose. The desk consist with 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 of progress, issues, constraints and challenges of social aspects, Community Development Program and implementation of resettlement plan as well as monitoring of social development activities. In 9th March 2015, a regular meeting of social safeguard desk has been organized. The meeting reviewed the public demands of people from Ward No. 18, BSMC. After appraising the formal application of people, the meeting decided to address the demands through CDP component of the project. (*Meeting Minute in Annex 6*)

- **Observation Visit**

39 According to the decision made at the 5th meeting of Safeguard Desk on 9 March, an observation visit and meeting with community people has been conducted in 11 March 2015. A team consisted with PIU, CDP and DSC representatives visited the field and consulted with the community people. The main objective of the visit was to assess the people's demand of that area and to consult with people addressing their demands. Regarding of land filling around the temple area, the team with Project Manager/ PIU observed the site and appraise the feasible options.

As the Safeguard Desk meeting has already been decided that the lane improvement tasks are related to community development program (CDP). After the observation visit and consultation meeting, it is decided to address the lane improvement demands of people if it matches the community development criteria being facilitated and implemented by NGO. The team walked throughout the villages of Jatuwa and observed all lanes/roads, around the village. The visiting team suggested to NGO (FriPAD) for detail technical study and construction cost calculation of road/lane improvement of this area.

- **Training Workshop on GESI AP Implementation, Monitoring and Reporting**

40 The Asian Development Bank (ADB) organized a two-day residential training workshop on Gender Equality and Social Inclusion Action Plan (GESI AP) implementation, monitoring and reporting on 25-26 March 2015 in Park Village Resort, Budhanilkantha, Kathmandu for the ADB assisted projects in Nepal. It was a Training Workshop for Gender Focal Persons of EAs/IAs, GESI Unit Staff and Project Gender Specialists.

The objectives of the workshop are to: a) enhance technical capacity to effectively implement and monitor GESI Action Plans (GESI APs) and report on GESI results; b) enhance capacity for GESI institutionalization within respective sectors/projects; c) increase capacity on designing and delivering GESI training at different levels; and d) enhance capacity on producing good practice case studies.

Mr. Bala Ram Mayalu, Social Development Specialist (SDS) of DSC actively participated in the training/ workshop. He presented the status of project GESIAP at the workshop and shared the learning and working approach as well.

- **Due Diligence Report**

41 Sewer/ Drainage lines are being carried primarily on public rights of way. During construction however, if there is any area affected namely trees or crops or structures demolished, it shall be properly addressed with compensation. Similarly, private individuals or shopkeepers will also be looked into if their livelihood is affected by the disturbance during constructions/ pipe laying works. Due Diligence study on this regard has been carried out and a report submitted to the PIU/ STIUEIP.

Apart from this, the project does not encounter any resettlement or re-location and any compensation issue.

42. Latest Updated Semi-Annual Report of Resettlement and Social Aspect was submitted on 14 January 2015.

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

43. Following are the key issues affected in progress:

- Limited site possession and access to site within Right of Way (RoW)
- Unexpected rainfall during last week of the month, 26th , 27th and 30th of March, this has caused significant disturbances in sewer lines, manholes, trench excavation , backfilling and concrete works even in the following week.
- Pipe laying at S13 line of storm drain, spring of water caused difficult to excavate and use shoring, now the contractor is preparing for dewatering and heavy shoring system to overcome these problems
- A brick manhole as an alternative to RCC manholes is conditionally allowed to construct for depth more than 3.0m. The site situation compelled us to adopt this practice to open traffic quickly, minimize the disturbances at junction points and to consider safety of road users and workers at vulnerable places etc.
- Shifting of electrical poles, transformers and telephone lines
- The water supply pipe lines are now prominent problem due to their location just or near the sub-grade level (250-350mm from the existing top road surface), these are supposed to be at standard depth of 900mm minimum from the ground level/road surface. These problems have been encountered in R2 road and Janani Marg. This has created difficulties to get required compaction with vibratory roller as per Technical Specifications. Now the Employer/BSMC has decided to relocate the pipes for R2 road with Mangadh Water Supply Project only(about 1 km on both sides). Similarly, the other locations are to be treated and the Employer has initiated its solution. This may take ample of time, few months.
- Dispute from local people, especially near outfall of B2 and now it is resolved.
- Localized disturbances at construction sites by local people for designed alignment and RoW Standards from BSMC.

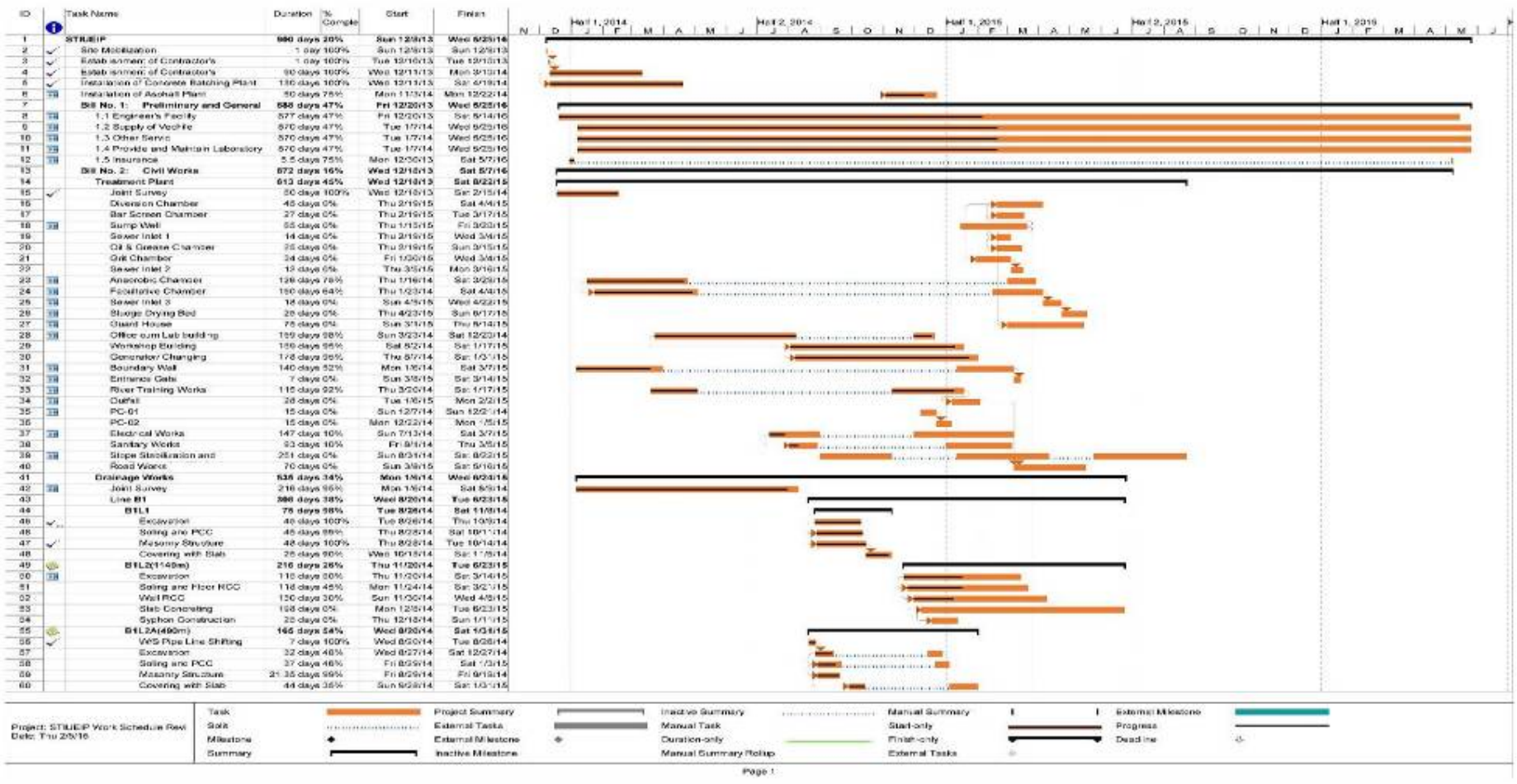
10 WORK PLAN FOR THE NEXT MONTH

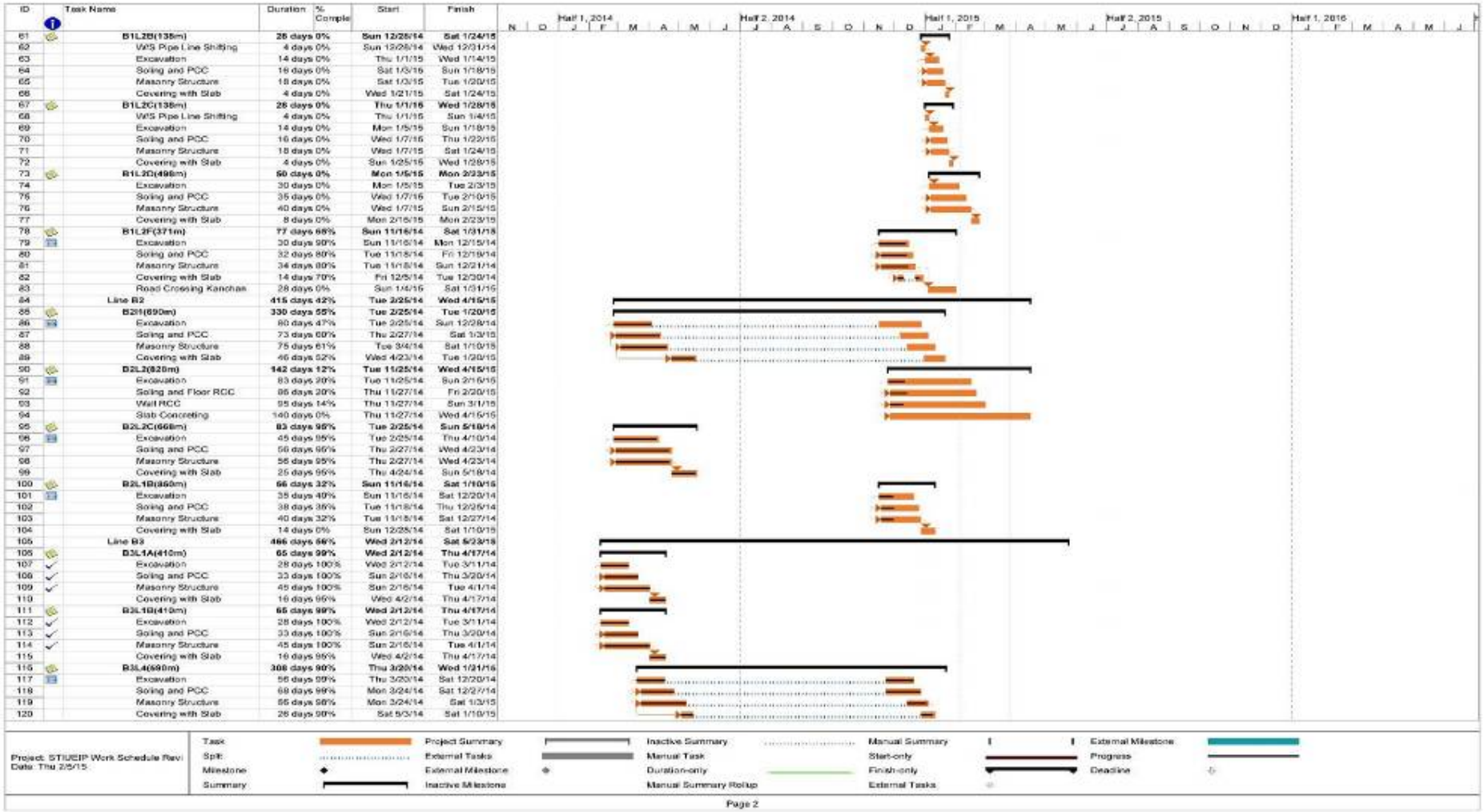
44. Following are the Contractor's works in the next month **(Please refer to the contractor's progress report for quantitative plan works for next month):**

- Continuation of storm water drains- B1,B2, B3, CN2, CN3, S9, S11, S13
- Continuation of sewer pipe lines T2 and T3 Trunk Line and Secondary Lines including manholes, sewer inlet chambers and house connecting chambers
- Construction of sump well , excavation beyond 5 m depth at WWTP, Jatuwa
- Cover drains with precast slabs and construction of slab guards.
- Construction of footpath is in progress in R2 road
- Road construction – Subgrade preparation for extended portion from Pushpalal Chowk to Bhatta Chowk
- Production of precast RCC items (hume pipe, kerb stone, chamber, manhole, drain cover slab etc)
- Suitability tests and routine tests of construction materials at Lab and at site

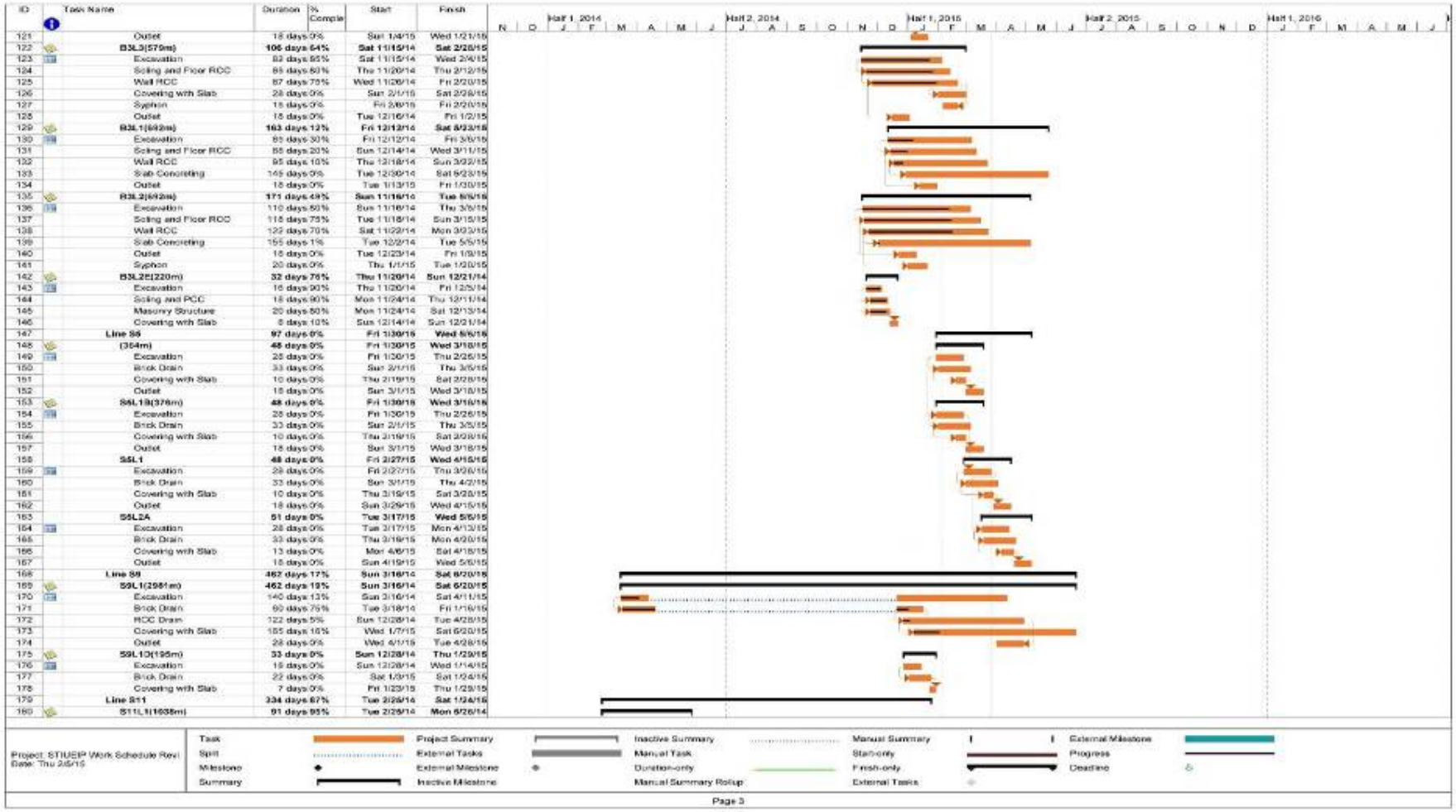
ANNEX-1: Work Schedule (Rev.02) (Under Review) and Progress

Note: Please refer to the contractor's progress report for details program.





ID	Task Name	Duration	% Comple	Start	Finish
61	**B1L2B(135m)**	**28 days**	**0%**	**Sun 12/28/14**	**Sat 1/24/15**
62	WS Pipe Line Shifting	4 days	0%	Sun 12/28/14	Wed 12/31/14
63	Excavation	14 days	0%	Thu 1/1/15	Wed 1/14/15
64	Soling and PCC	16 days	0%	Sat 1/3/15	Sun 1/18/15
65	Masonry Structure	18 days	0%	Sat 1/3/15	Tue 1/20/15
66	Covering with Slab	4 days	0%	Wed 1/21/15	Sat 1/24/15
67	**B1L2C(135m)**	**28 days**	**0%**	**Thu 1/1/15**	**Wed 1/28/15**
68	WS Pipe Line Shifting	4 days	0%	Thu 1/1/15	Sun 1/4/15
69	Excavation	14 days	0%	Mon 1/5/15	Sun 1/18/15
70	Soling and PCC	16 days	0%	Wed 1/7/15	Thu 1/22/15
71	Masonry Structure	18 days	0%	Wed 1/7/15	Sat 1/24/15
72	Covering with Slab	4 days	0%	Sun 1/25/15	Wed 1/28/15
73	**B1L2D(498m)**	**50 days**	**0%**	**Mon 1/5/15**	**Mon 2/23/15**
74	Excavation	30 days	0%	Mon 1/5/15	Tue 2/3/15
75	Soling and PCC	35 days	0%	Wed 1/7/15	Tue 2/10/15
76	Masonry Structure	40 days	0%	Wed 1/7/15	Sun 2/15/15
77	Covering with Slab	8 days	0%	Mon 2/16/15	Mon 2/23/15
78	**B1L2F(371m)**	**77 days**	**68%**	**Sun 11/16/14**	**Sat 1/31/15**
79	Excavation	30 days	90%	Sun 11/16/14	Mon 12/15/14
80	Soling and PCC	32 days	80%	Tue 11/18/14	Fri 12/19/14
81	Masonry Structure	34 days	80%	Tue 11/18/14	Sun 12/21/14
82	Covering with Slab	14 days	70%	Fri 12/5/14	Tue 12/30/14
83	Road Crossing Kanchan	28 days	0%	Sun 1/4/15	Sat 1/31/15
84	**Line B2**	**415 days**	**42%**	**Tue 2/25/14**	**Wed 4/15/15**
85	**B2I(690m)**	**330 days**	**55%**	**Tue 2/25/14**	**Tue 1/20/15**
86	Excavation	80 days	47%	Tue 2/25/14	Sun 12/28/14
87	Soling and PCC	73 days	60%	Thu 2/27/14	Sat 1/3/15
88	Masonry Structure	75 days	61%	Tue 3/4/14	Sat 1/10/15
89	Covering with Slab	46 days	52%	Wed 4/23/14	Tue 1/20/15
90	**B2L3(820m)**	**142 days**	**12%**	**Tue 11/25/14**	**Wed 4/15/15**
91	Excavation	83 days	20%	Tue 11/25/14	Sun 2/15/15
92	Soling and Floor RCC	86 days	20%	Thu 11/27/14	Fri 2/20/15
93	Wall RCC	95 days	14%	Thu 11/27/14	Sun 3/1/15
94	Slab Concreting	140 days	0%	Thu 11/27/14	Wed 4/15/15
95	**B2L2C(668m)**	**83 days**	**95%**	**Tue 2/25/14**	**Sun 5/18/14**
96	Excavation	45 days	95%	Tue 2/25/14	Thu 4/10/14
97	Soling and PCC	56 days	95%	Thu 2/27/14	Wed 4/23/14
98	Masonry Structure	56 days	95%	Thu 2/27/14	Wed 4/23/14
99	Covering with Slab	25 days	95%	Thu 4/24/14	Sun 5/18/14
100	**B2L1B(860m)**	**66 days**	**32%**	**Sun 11/16/14**	**Sat 1/10/15**
101	Excavation	35 days	40%	Sun 11/16/14	Sat 12/20/14
102	Soling and PCC	38 days	36%	Tue 11/18/14	Thu 12/25/14
103	Masonry Structure	40 days	32%	Tue 11/18/14	Sat 12/27/14
104	Covering with Slab	14 days	0%	Sun 12/28/14	Sat 1/10/15
105	**Line B3**	**466 days**	**66%**	**Wed 2/12/14**	**Sat 5/23/15**
106	**B3L1A(410m)**	**65 days**	**99%**	**Wed 2/12/14**	**Thu 4/17/14**
107	Excavation	28 days	100%	Wed 2/12/14	Tue 3/11/14
108	Soling and PCC	33 days	100%	Sun 2/16/14	Thu 3/20/14
109	Masonry Structure	45 days	100%	Sun 2/16/14	Tue 4/1/14
110	Covering with Slab	16 days	95%	Wed 4/2/14	Thu 4/17/14
111	**B3L1B(410m)**	**65 days**	**99%**	**Wed 2/12/14**	**Thu 4/17/14**
112	Excavation	28 days	100%	Wed 2/12/14	Tue 3/11/14
113	Soling and PCC	33 days	100%	Sun 2/16/14	Thu 3/20/14
114	Masonry Structure	45 days	100%	Sun 2/16/14	Tue 4/1/14
115	Covering with Slab	16 days	95%	Wed 4/2/14	Thu 4/17/14
116	**B3L4(690m)**	**308 days**	**90%**	**Thu 3/20/14**	**Wed 1/21/15**
117	Excavation	56 days	99%	Thu 3/20/14	Sat 12/20/14
118	Soling and PCC	68 days	99%	Mon 3/24/14	Sat 12/27/14
119	Masonry Structure	66 days	98%	Mon 3/24/14	Sat 1/3/15
120	Covering with Slab	26 days	90%	Sat 5/3/14	Sat 1/10/15



ID	Task Name	Duration	% Comple	Start	Finish
121	Outlet	15 days	0%	Sat 1/4/15	Wed 1/21/15
122	**B3L3(570m)**	**105 days**	**64%**	**Sat 11/15/14**	**Sat 2/28/15**
123	Excavation	82 days	55%	Sat 11/15/14	Wed 2/4/15
124	Soling and Floor RCC	85 days	60%	Thu 11/20/14	Thu 2/12/15
125	Wall RCC	87 days	75%	Wed 11/26/14	Fri 2/20/15
126	Covering with Slab	28 days	0%	Sun 2/1/15	Sat 2/28/15
127	Syphon	15 days	0%	Fri 2/6/15	Fri 2/20/15
128	Outlet	15 days	0%	Tue 12/16/14	Fri 1/2/15
129	**B3L1(692m)**	**163 days**	**12%**	**Fri 12/12/14**	**Sat 6/23/15**
130	Excavation	85 days	30%	Fri 12/12/14	Fri 3/6/15
131	Soling and Floor RCC	85 days	20%	Sun 12/14/14	Wed 3/11/15
132	Wall RCC	95 days	10%	Thu 12/18/14	Sun 3/22/15
133	Slab Concreting	145 days	0%	Tue 12/30/14	Sat 6/23/15
134	Outlet	15 days	0%	Tue 1/13/15	Fri 1/30/15
135	**B3L2(692m)**	**171 days**	**4%**	**Sun 11/16/14**	**Tue 5/5/15**
136	Excavation	110 days	50%	Sun 11/16/14	Thu 3/5/15
137	Soling and Floor RCC	115 days	75%	Tue 11/18/14	Sun 3/15/15
138	Wall RCC	122 days	70%	Sat 11/22/14	Mon 3/23/15
139	Slab Concreting	155 days	1%	Tue 12/2/14	Tue 5/5/15
140	Outlet	15 days	0%	Tue 12/23/14	Fri 1/9/15
141	Syphon	20 days	0%	Thu 1/1/15	Tue 1/20/15
142	**B3L2E(220m)**	**32 days**	**78%**	**Thu 11/20/14**	**Sun 12/21/14**
143	Excavation	16 days	90%	Thu 11/20/14	Fri 12/5/14
144	Soling and PCC	18 days	90%	Mon 11/24/14	Thu 12/11/14
145	Masonry Structure	20 days	50%	Mon 11/24/14	Sat 12/13/14
146	Covering with Slab	8 days	10%	Sun 12/14/14	Sun 12/21/14
147	**Line S6**	**97 days**	**0%**	**Fri 1/30/15**	**Wed 5/6/15**
148	**(364m)**	**48 days**	**0%**	**Fri 1/30/15**	**Wed 3/18/15**
149	Excavation	28 days	0%	Fri 1/30/15	Thu 2/26/15
150	Brick Drain	33 days	0%	Sun 2/1/15	Thu 3/5/15
151	Covering with Slab	10 days	0%	Thu 2/19/15	Sat 2/28/15
152	Outlet	15 days	0%	Sun 3/1/15	Wed 3/18/15
153	**S6L1B(376m)**	**48 days**	**0%**	**Fri 1/30/15**	**Wed 3/18/15**
154	Excavation	28 days	0%	Fri 1/30/15	Thu 2/26/15
155	Brick Drain	33 days	0%	Sun 2/1/15	Thu 3/5/15
156	Covering with Slab	10 days	0%	Thu 2/19/15	Sat 2/28/15
157	Outlet	15 days	0%	Sun 3/1/15	Wed 3/18/15
158	**S6L1**	**48 days**	**0%**	**Fri 2/27/15**	**Wed 4/15/15**
159	Excavation	28 days	0%	Fri 2/27/15	Thu 3/26/15
160	Brick Drain	33 days	0%	Sun 3/1/15	Thu 4/2/15
161	Covering with Slab	10 days	0%	Thu 3/19/15	Sat 3/28/15
162	Outlet	18 days	0%	Sun 3/29/15	Wed 4/15/15
163	**S6L2A**	**51 days**	**0%**	**Tue 3/17/15**	**Wed 5/6/15**
164	Excavation	28 days	0%	Tue 3/17/15	Mon 4/13/15
165	Brick Drain	33 days	0%	Thu 3/19/15	Mon 4/20/15
166	Covering with Slab	13 days	0%	Mon 4/6/15	Sat 4/18/15
167	Outlet	18 days	0%	Sun 4/19/15	Wed 5/6/15
168	**Line S9**	**462 days**	**17%**	**Sun 3/16/14**	**Sat 6/20/15**
169	**S9L1(2981m)**	**462 days**	**19%**	**Sun 3/16/14**	**Sat 6/20/15**
170	Excavation	140 days	13%	Sun 3/16/14	Sat 4/11/15
171	Brick Drain	60 days	75%	Tue 3/18/14	Fri 1/16/15
172	RCC Drain	122 days	5%	Sun 12/28/14	Tue 4/28/15
173	Covering with Slab	165 days	16%	Wed 1/7/15	Sat 6/20/15
174	Outlet	28 days	0%	Wed 4/1/15	Tue 4/28/15
175	**S9L1D(195m)**	**33 days**	**0%**	**Sun 12/28/14**	**Thu 1/29/15**
176	Excavation	19 days	0%	Sun 12/28/14	Wed 1/14/15
177	Brick Drain	22 days	0%	Sat 1/3/15	Sat 1/24/15
178	Covering with Slab	7 days	0%	Fri 1/23/15	Thu 1/29/15
179	**Line S11**	**334 days**	**67%**	**Tue 2/28/14**	**Sat 1/24/15**
180	**S11L1(1638m)**	**91 days**	**95%**	**Tue 2/25/14**	**Mon 6/26/14**

ANNEX2: PHOTOGRAPHS - MARCH 2015

Screening of subbase materials at crusher plant site, Letang

Sampling of Subbase materials from stockpile

Site visit by Mr. Indu Sharma Dhakal, CM Consultant ADB at T3 Sewer Line

Site Visit by Mr. Arjun K Karki, the Secretary, Ministry of Urban Development and Mr. S Gyawali, ED, TDF on 30th March 2015 at Contractor's Yard , Katahari

Site Visit by Dr. B.R. Kansakar, Sewage Treatment Soecialist(National) at Sump well -WWTP site on 20-21 March 2015

Site Visit by Dr. B.R. Kansakar, Sewage Treatment Soecialist(National) at WWTP site on 20-21 March 2015

Storm Drain Works disturbed due unexpected rain, 26-27 March 2015 at B3

Well function of weep holes observed during rain on 26-27 March 2015, completed Storm drain at B2

RCC Cover Slabs for storm drain S11 at West side of Pushpalal Chowk

Trench Excavation for Storm Drainage at Rani Area in Progress (East Side of Koshi Highway)

Outfall structure at B3 in progress

Precast manhole installed at site

Brick Manhole under construction at T2 (Near National Trading Office)

Complete Brick Masonry Manhole at T2 (Near National Trading Office)

ANNEX-3: FINANCIAL STATUS (DETAILS OF SUBMITTED INVOICES AND RECEIPT OF PAYMENTS WITH KEY DATES)

Invoice #	For Month	Invoice Amount including VAT		Received Amount		Remarks
Invoice 01	Advance	NRs. 9,866,160.40	USD 104,621.20	NRs. 9,866,160.40	USD 104,621.20	Received
Invoice 02	Inception Report	NRs. 1,947, 420.08	USD 52,721.00	Rs. 1,947, 420.08	USD 52,721.00	Received
Invoice 03	Jan +Feb, 2012-months Invoice	NRs. 2,387,262.11	USD 4, 243.15	NRs.2,329,310.81	USD 4, 243.15	Partly received
Invoice 04	March, 2012	NRs. 537,546.65	USD 2,276.95	NRs. 351,430.00	USD 2,276.95	Partly received
Invoice 05	April, 2012	NRs. 396,065.00		NPR 267,810.00		Partly received
Invoice 06	Vehicle Invoice	NRs. 8,000,000.00		NRs. 8,000,000.00		Received
Invoice 07	May- month Invoice	NRs. 502,324.55		NRs 250,860.00		Partly received
Invoice 08	June-month Invoice	NRs. 464,430.00		NRs 262,160.00		Partly received
Invoice09	Interim Report		USD 70,295.04		USD 70,295.04	
Invoice 10	Interim Report	NRs. 2,596,560.10		NRs 2,596,560.10		Received

Invoice 11	April-June,2012		USD 1,270.00		USD 1,270.00	Received
Invoice 12	July-month Invoice		USD 2,015.00		USD 2,015.00	Received
Invoice 13	Survey Invoice I	NRs. 2,166,775.00		NRs. 2,166,775.00		Received
Invoice 14	July-month Invoice	NRs. 669,751.00		NRs. 321,146.00		Partly received
Invoice 15	August month Invoice	NRs. 337,870.00	USD 0.00	NPR 314,140.00	USD 0.00	
Invoice 16	September month Invoice	NRs. 328, 830.00	USD 3, 361.75	NRs. 314,140.00	USD1854.75	Partly received
Invoice 17	Survey Works Invoice II	NRs. 1,166,775.00		NRs. 1,166,775.00		Received
Invoice 18	Monthly Invoice Oct.12	NRs. 357,080.00	USD 2,895.00	NRs. 324,310.00	USD 2,895.00	Not received
Invoice 19	Environmental Base line survey	NRs.144,634.35		NRs. 125,769.00		Received
Invoice 20	Monthly Invoice Nov.12	NRs. 331,090.00	US$. 4,407.00	NRs. 324,310.00	US$. 4,407.00	Partly received
Invoice 21	Monthly Invoice-Dec.2012	NRs. 449,175.00	US$ 1,909.70	Nrs. 350,865.00	US$ 1,909.70	Partly received
Invoice 22	Draft Report Invoice	NRs. 5,193,120.21	US$140,590.08	NRs. 5,193,120.21	USD 91,587.31	Received
Invoice 23	Geotechnical Investigation Invoice	NRs. 191,741.23		NRs.166,731.00		Received
Invoice 24	Vehicle hard top Invoice	NRs. 707,125.70		NRs. 707,125.70		Received
Invoice 25	Monthly Invoice Jan13	NRs. 410,868.00	USD 4,327.90	NRs. 380,923.00	USD 3103.40	Partly received

Invoice 26	Monthly Invoice Feb13	NRs.324,310.00	USD 3,051.00	NRs.324,310.00	USD 2,203.50	Partly received
Invoice 27	Monthly Invoice Mar 13	NRs. 404,467.68	USD 4553.90	NRs. 361,600.00	USD 4553.90	Partly received
Invoice 28	Final Report Invoice	NRs. 3,245,700.13	USD 87,868.80	NRs. 3,245,700.13	USD 85,350.48	Partly received
Invoice 29	Monthly Invoice April 13	NRs. 340,695.00	USD 1,322.10	NRs. 324,310.00	USD 881.40	Partly received
Invoice 30	Monthly Invoice May 13	NRs. 671,951.00	USD 4,4435.25	NRs. 576,700.02	USD 4,4435.25	Partly received
Invoice 31	Monthly Invoice June 13	NRs. 1,107,583.06	USD 2,203.50	NRs.448,376.81	USD 2,203.50	Partly received
Invoice 32	Additional Survey	NRs. 1,050,052.00				Not received
Invoice 33	Monthly Invoice July 13	NRs. 589,490.49	USD 1,542.45	NRs 481,693.01	USD 1,101.75	Partly received
Invoice 34	Monthly Invoice August 13	NRs. 701,094.94	USD 00.00	NRs 629,499.89	USD 0.00	Partly received
Invoice 35	Monthly Invoice Sept. 13	NRs. 424,773.78	USD 00.00	NRs 424,772.45	USD 0.00	Not received
Invoice 36	Monthly Invoice Oct. 13	NRs. 458,661.35	USD 00.00	NRs 408,710.78	USD 0.00	Not received
Invoice 37	Monthly Invoice Nov. 13	NRs. 450,085.78	USD 0.00	NRs 431,600.15	USD 0.00	Partly received
Invoice 38	Monthly Invoice Dec. 13	NRs. 501,084.94	USD 00.00	NRs 481,693.01	USD 0.00	Partly received
Invoice 39	Monthly Invoice Jan. 2014	NRs. 695,501.44	USD 00.00	NRs. 609,960.44	USD 0.00	Partly received

Invoice 40	Monthly Invoice Feb. 2014	NRs. 613,180.94	USD 00.00	NRs. 613,180.94	USD 0.00	Received
Invoice 41	Monthly Invoice Mar. 2014	NRs.1,308,022.	USD 00.00	NRs. 599,281.94	USD 0.00	Partly received
Invoice 42	Monthly Invoice Apr. 2014	NRs. 861,039.32	USD 00.00	NRs. 716,817.76	USD 0.00	Partly received
Invoice 42	Geotechnical Inv. II	NRs. 549,989.85	USD 00.00	NRs. 546,232.96	USD 0.00	Received
Invoice 43	Monthly Invoice May 2014	NRs. 1,170,291.64	USD 00.00	NRs. 965,435.84	USD 0.00	Partly received
Invoice 44	Monthly Invoice June 2014	NRs.1,163,214.09	USD19,313.42	NRs. 950,892.74	USD 0.00	Partly received
Invoice 45	Monthly Invoice July 2014	NRs. 854,199.00	USD18,465.92	NRs. 719,321.84	USD 0.00	Partly received
Invoice 46	Monthly Invoice August 2014	NRs 865,951.00	USD 0.00	NRs.726,553.84	USD 0.00	Partly received
Invoice 47	Monthly Invoice September 2014	NRs 777,343.07	USD 0.00	NRs 584,568.89	USD 0.00	Partly received
Invoice 48	Monthly Invoice October 2014	NRs 841,778.13	USD 0.00	NRs 657,106.30	USD 0.00	Partly received
Invoice 49	Monthly Invoice November 2014	NRs 1,306,536.89	USD 0.00	NRs 768,654.25	USD 0.00	Partly received
Invoice 50	Monthly Invoice December 2014	NRs 1,348,791.74	USD 0.00	NRs 987,178.63	USD 0.00	Partly received
Invoice 51	Monthly Invoice Jan 2015	NRs 1,255,351.08	USD 0.00	NRs 988,789.39	USD 0.00	Partly received

ANNEX-4: STATUS OF ACTIONS AGREED WITH PREVIOUS ADB LOAN REVIEW MISSION

S. No.	Agreed Items in ADB Review Mission with DSC on 2-4 December 2014	Status	Responsibility
1	Updated Semi-Annual Resettlement and Social Aspect Report	Report Submitted on 14 January 2015	DSC/PMSC
2	DSC will review its construction supervision plan (including international experts inputs) against the contractors approved scheduled and submit it to PIU.	Draft Plan submitted	DSC
3	Submission of implementation status of EMP to ADB in quarterly basis	Report Submitted till December, 2014	DSC/PMSC

ANNEX-5: PROFESSIONAL INPUT AS PER CONTRACT VS INPUT USED TILL THIS REPORTING PERIOD

S.No.	Expert / Position	Total man months Input (as per agreement)			Man months Used in 2012/013/014/2015			Balance
A	Professional Staff	Design	Construction	Total	Up to Feb. 2015	Mar. 2015	Total	
A1	International Professional Staff							
1	Sewerage and Drainage Engineer	8	4	12	7.37	0.00	7.37	4.63

S.No.	Expert / Position	Total man months Input (as per agreement)			Man months Used in 2012/013/014/2015			Balance
2	Sewage Treatment Specialist (1 day at May, 2014)	5	4	9	6.01	0.00	6.01	2.99
3	PPP Specialist	2		2	2.00	0.00	2.0	0.00
A2	Domestic Professional Staff				Up to Feb.2015	Mar 2015	Total	Balance
4	Team Leader/ S-D Engineer	12	24	36	27.23	1.00	28.23	8.77
5	Sewage Treatment Specialist	8	18	26	10.50	0.50	11.0	15.00
6	Procurement Specialist	5	2	7	8.75	0.00	8.75	(1.75)
7	DTL/ Quantity Surveyor	9		9	10.00	0.00	10.0	(1.00)
8	Urban Planner	4	2	6	5.00	0.00	5.0	1.00
9	Financial Expert	5		5	6.00	0.00	6.0	(1.00)
10	Institutional Development Specialist	2	3	5	2.00	0.00	2.0	3.00
11	PPP Specialist	3		3	3.00	0.00	3,0	0.00
12	Roads Specialist	4	8	12	6.45	0.55	7.00	4.00

S.No.	Expert / Position	Total man months Input (as per agreement)			Man months Used in 2012/013/014/2015			Balance
13	Civil and Structural Specialist	6	2	8	7.95	0.00	7.95	0.05
14	Electrical Engineer	3	1	4	3.50	0.00	3.50	0.50
15	Mechanical Engineer	3	1	4	3.90	0.00	3.90	0.10
16	Construction Management Specialist		10	10	0.00	0.00	0.00	10.00
17	Environmental Specialist	8	12	20	11.20	1.00	12.20	7.80
18	Social Development Specialist	8	15	23	16.00	1.00	17.00	6.00
19	Construction Supervision Engineer		30	30	14.00	1.00	15.00	15.00
20	Asst. Construction S Engineer- 1		30	30	8.50	1.00	9.50	20.50
	Asst. Construction S Engineer- 2		30	30	10.70	1.00	11.70	18.30
21	Senior Statistician	4		4	4.00	0.00	4.00	0.00
22	Geologist	1		1	1.00	0.00	1.00	0.00
23	Biologist	1		1	1.00	0.00	1.00	0.00
24	Geo-technical Engineer	1		1	2.40	0.00	2.40	(1.40)
25	GIS Expert	2		2	4.00	0.00	4.00	(2.00)
26	Senior Surveyor	2		2	2.00	0.00	2.00	0.00

S.No.	Expert / Position	Total man months Input (as per agreement)			Man months Used in 2012/013/014/2015			Balance
	Network Modular				8.00	0.00	8.00	(8.00)
	Hydrologist				4.00	0.00	4.00	(4.00)
A-3	Support Staff							
27	Junior Engineer-1			49	38.00	1.00	39.00	10.00
	Junior Engineer-2			49	38.00	1.00	39.00	10.00
	Junior Engineer-3			24	5.00	1.00	6.00	18.00
	Junior Engineer-4			49	1.33	1.00	2.33	46.67
	CAD Operators			20	0.00	0.00	0.00	20.00
28	Accountant / Office Manager			49	38.00	1.00	39.00	10.00
29	Secretary / Computer Operator			49	36.75	1.00	37.25	11.25
30	Driver-1			49	31.27	1.00	32.27	16.73
	Driver-2			49	30.10	1.00	31.10	17.90
30	Office Assistant			49	37.50	1.00	38.50	10.50

ANNEX-6: MINUTES OF MEETING – MARCH 2015

List of Minutes of Meeting

1. Minutes of Meeting - 4th March 2015
2. Minutes of Meeting No 5- Safeguard Desk, 9 March 2015

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

MEETING NOTES

Sewerage and Drainage Network, Wastewater Treatment Plant, and Roads and Lanes Improvement Subproject

(Contract # STIUEIP/W/BRT/ICB-01)

Meeting held: Date : 04 March 2015
Time : 3:15 PM
Venue : Contractor's Office, Judi, Katahari ,Biratnagar

Subject : Progress Meeting No 05

Client : BSMC , STIUEIP , Government of Nepal

Contractor : CTCE-KALIKA JV

Consultant: SMEC in association with BCE, AQUA, BDA and CEMAT

Present :

1. Mr. Mohan Kumar Tuladhar, Team Leader, Consultant
2. Mr. Dil Bahadur Rana, Construction Supervision Engineer (CSE), Consultant
3. Mr.Jaya Prakash Yadav, Asst. Construction Supervision Engineer(ACSE), Consultant
4. Mr. Bhakta Raj Shakya, Asst. Construction Supervision Engineer(ACSE), Consultant
5. Mr.Ujjwal Prasai, Project Manager, CTCE- Kalika JV, Contractor
6. Mr. Mahesh Subedi, Construction Engineer, CTCE- Kalika, Contractor
7. Mr. Santosh Pudasaini, Planning/Construction Engineer, CTCE- Kalika, Contractor

	ACTION by
The purpose of the meeting was to discuss the issues of measurement and site works. The Consultant raised the issue of quantity for shoring for sewer line and storm drainage. The Consultant checked the available quantity of shoring from the Engineer's estimate and confirmed that the current BoQ has the provision of shoring for sewer works only for the depth of cutting more than 2.5m and approximate quantity of 10,000m2 for drainage works at S13 (1,600mm diameter RCC pipes). The Consultant also informed the Contractor that this matter was already discussed with the Project Manager, PIU, STIUEIP this morning.	Contractor Consultant
The Contractor expressed that the Contractor has to work with safety and requirement of shoring at sites. This matter should not be strict to the available quantity in BoQ, this may be changed as per actual requirement and accordingly Variation Order should consider increase/decrease in quantity.	
The Consultant express the concern of limited quantity and emphasize the actual need of shoring to protect the property (public/private) and safety of the workers and the work. The discussion was concluded for this item of work as follows:	
Case I: Trench Excavation ≥ 1.5m depth 1. The Contractor is allowed to provide shoring above 1.5m in the trench of sewer lines as well in storm water drains. 2. The Contractor provides the shoring above 1.5m and both parties will take <u>actual measurement of</u> shoring wherever provided. The Contractor and the Consultant will keep the records with photograph as much as possible.	Consultant/ Contractor
Case II: Trench Excavation ≤ 1.5m depth 1. There may arise a need to provide shoring for the safety of works, worker and the soil conditions i. Foundation Excavation in weak soil, seepage area, loose soil , underground spring water , fountain etc ii. To protect public utilities – electric poles, telephone poles, network cables etc iii. To protect public and or private properties- adjacent and or within 2m from Rights of Way (RoW) buildings, compound walls, wired fences 2. The Contractor provides the shoring less than 1.5m and both parties will take <u>actual measurement of</u> shoring wherever provided. The Contractor and the Consultant will keep the records with photograph as much as possible.	Consultant/ Contractor

	ACTION by
The other issue was with the Interim Payment Certificate (IPC) No 08. There was very short time period to check and forward the IPC 08. Both parties agreed to proceed with the IPC 08 in a view to thorough check immediate after submission to the Employer. The actual measurement of item of shoring will be finalised and confirmed in IPC 09. There may occur such time constraint for checking and forwarding the IPCs in Dashai/Tihar and at the time of closing of Fiscal Year, Ashad.	Contractor Consultant
Now the coming IPCs will be checked and forwarded to the Employer at the earliest possible time of seven days if there is no major changes/ disputes arise, otherwise the normal procedure will be followed as per the contract. The checked and accepted works of the month will be measured, the measurement should be started from 25th day of every month and the IPC will be prepared based on measured quantities and submitted to the Consultant in first week of every month in a regular basis as provisioned in the contract. .	Contractor Consultant
Distribution: To the Contractor and Consultant	

The meeting ended 5:15 PM.

Meeting of Safeguard Desk

Venue: Project Implementation Unit (PIU)/ STIUEIP, Biratnagar

Date: 9 March 2015

Time: 14:00-15:30

Attended:

Upendra Prasad Baral- Project Manager/ STIUEIP, Biratnagar

Punam Kumar Dahal- Chief, Social Development/ PIU, STIUEIP Biratnagar

Noor Jang Thapa- Team Leader/ CDP, STIUEIP (NGO)

Bala Ram Mayalu- Social Development Specialist/ DSC, STIUEIP

Discussion Agenda:

Public demands of people from Ward No.18 , BSMC

Discussion and Decisions

S.No.	Agenda	Discussions and Decisions	Action/ Responsible Persons, Organizations
1.	Public demands of people from Ward No.18 , BSMC	This regular meeting of Safeguard Desk is started with an application of community people tabled by Chief, Social Development/ PIU. It is a meeting minute of people in ward no. 18, Jatuwa, nearby of the Waste Water Treatment Plant (WWTP) construction site. These communities are lies in the 'zone of influence' being the village of affected persons of project as indicated in Resettlement Plan of STIUEIP Biratnagar. So, this meeting put this agenda in priority and special focus on the demands of people. Prior to make decisions in the application, this meeting decided to observe the communities, meet the people, appraise its feasibility and make consultations with them about the demands in the application. The safeguard desk members agreed for emphasized focus on this application after the observation visit and go forward with series of interaction, compliance with the project criteria of community development component and technical feasibility. ***(The Application of community people is attached)***	The first field observation: **8:00 AM, Wednesday, 11 March** Visitors: **PM/ PIU, Chief SD/ PIU, TL/CDP, SDS/DSC** Preparation/ Arrangement: **Chief SD/PIU**

ANNEX-7: LABORATORY TEST RESULTS OF MARCH 2015

SECONDARY TOWNS INTEGRATED URABAN ENVIRONMENTAL IMPROVEMENT PROJECT

Biratnagar Sub-Metropolitant City

Summary of Fine Concrete Aggregates Sand FOR THE MONTH OFMARCH 2015

S.N.	DESCRIPTION / LOCATION	LAB REF. NO:	Grain Siza Distribution 10	4.75	2.36	1.18	0.6	0.3	0.15	Sp Gr	Water Absorption %	Unit Weight gm/cc	REMARKS
1	From Om Shree crusher plant	MR13	100.0	96.6	83.72	64.4	43.29	18.78	5.19				source
2	From S9L2A 0+350 RCC work	MR14	100.0	97.12	87.23	72.48	49.64	19.78	7.37				om shree
3	From B3L1 RCC Work	MR15	100.0	99.04	90.38 ~~90.8~~	69.23	47.88	18.08	4.23				
4	From B3L1 RCC Work	MR16	100.0	98.75	90.88	71.91	51.70	19.14	6.62				
5	From B3L1 RCC Work	MR17	100.0	98.05	90.09	70.27	49.73	18.94	7.26				
6	From B2 DPS RCC WORK	MR18	100.0	99.05	90.00	67.94	45.56	15.56	5.24				
7	From B2 DPS RCC WORK	MR19	100.0	95.21	85.21	63.24	39.3	15.99	5.99				
8	From B2 DPS RCC WORK	MR20	100.0	94.79	84.65	63.02	38.99	16.15	5.87				
9	From B1L1 RCC WORK	MR21	100.0	94.44	84.07	62.33	38.69	16.43	6.19				crusher
10	From B1L1 RCC WORK	MR22	100.0	93.97	82.32	61.03	37.73	16.32	6.03				plant
Specifacation Limit is 383-1970 Zone -2			100-100	90-100	75-100	55-90	35-59	8-30	0-10				

SMEC-BRISBANE-AQUA-CEMAT-BDA

Approved by C.S.E

Test Checked by Junior Engineer

Consultant Reps

CTCE-KALIKA J/V

Submitted by Project Manager

Test Conducted by Q.C Manager

Contractor 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 MARCH 2015

Date	WEATHER Record							Temp.c	
	Sunny	Foggy	Windy	Cloudy	Morning Rain HRS	Night Rain Hrs.	Day Rain Hrs.	9:00 AM	Rain fall mm
1	Sunny							22.5	
2	Sunny							22.1	
3	Sunny							22.2	
4	Sunny							23.5	
5	Sunny							21.1	
6	Sunny							21.8	
7	Sunny							22.2	
8	Sunny							23.8	
9	Sunny							22.2	
10	Sunny							22.9	
11	Sunny							21.1	
12	Sunny							21.5	
13	Sunny							21.8	
14	Sunny							22.5	
15	Sunny							23.1	
16	Sunny							23.9	
17	Sunny							22.2	
18	Sunny							23.2	
19	Sunny							23.9	
20	Sunny							22.9	
21	Sunny							22.1	
22	Sunny							22.5	
23	Sunny							23.5	
24	Sunny							23.8	
25	Sunny							26.1	
26	Sunny					Night hour ✓		19.2	60mm
27	Sunny							18.2	
28	Sunny							22.5	
29	Sunny							20.2	
30	Sunny					Night hour ✓	Night hour	20.1	50.1mm
31	Sunny							19.8	

SMEC-Brisbane-AQUA-BDA-CEMAT	CTCE-KALIKA J/V
Approved by CSE	Submitted by Project Manager
Record Checked by Junior Engineer	Record Reported by Q.C Manager
Consultants Reps	Contractors Reps

SECONDARY TOWNS INTEGRATED URABAN ENVIRONMENTAL IMPROVEMENT PROJECT

Biratnagar Sub-Metropolitant City

Summary of Fine Concrete Aggregates Sand FOR THE MONTH OFMARCH 2015

S.N.	DESCRIPTION / LOCATION	LAB REF. NO:	Grain Siza Distribution 10	4.75	2.36	1.18	0.6	0.3	0.15	Sp Gr	Water Absorption %	Unit Weight gm/cc	REMARKS
11	From B1L1 RCC WORK	MR23	100.0	93.71	82.22	60.82	37.36	16.69	6.77				source
12	From Slab casting yard	MR24	100.0	96.1	83.9	62.08	44.94 ~~44.95~~	17.66	4.16				om shree
13	From Slab casting yard	MR25	100.0	94.57	81.98	62.96	45.68	18.27	4.94				
14	From Slab casting yard	MR26	100.0	94.44	80.67	62.44	44.89	18.22	4.89				
15	From Slab casting yard	MR27	100.0	95.47	81.87	64	45.6	16.53 ~~15.53~~	3.73				
16	From Slab casting yard	MR28	100.0	94.74	79.47	61.05	43.16	14.47	2.89				
17	From Man Hole Casting Yard	MR29	100.0	93.2	79.93	59.93	36.87	15.47	6.67				
18	From Man Hole Casting Yard	MR30	100.0	93.07	78.93	58.93	35.87	14.4	5.6				
19	From Man Hole Casting Yard	MR31	100.0	91.44	76.33	56.78	34.78	14.00	5.11				crusher
20	From Man Hole Casting Yard	MR32	100.0	95.22	77.30	58.96	39.83	12.26	3.65				plant
Specifacation Limit is 383-1970 Zone -2			100-100	90-100	75-100	55-90	35-59	8-30	0-10				

SMEC-BRISBANE-AQUA-CEMAT-BDA

Approved by C.S.E

Test Checked by Junior Engineer

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 OFMARCH 2015

S.N.	DESCRIPTION / LOCATION	LAB REF. NO:	Grain Siza Distribution 10	4.75	2.36	1.18	0.6	0.3	0.15	Sp Gr	Water Absorption %	Unit Weight gm/cc	REMARKS
21	From B1L1 RCC WORK	MR33	100.0	94.52	75.74	56.87	36.87	11.57	2.78				source
22	From Slab casting yard	MR34	100.0	93.76	75.04	56.72	36.8	12.24	2.96				om shree
23	From Slab casting yard	MR35	100.0	~~94.72~~ 94.73	76.18	57.09	36.73	11.09	2.45				
													crusher
													plant
Specifacation Limit is 383-1970 Zone -2			100-100	90-100	75-100	55-90	35-59	8-30	0-10				

SMEC-BRISBANE-AQUA-CEMAT-BDA

Approved by C.S.E

Test Checked by Junior Engineer

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 OFMARCH 2015

S.N.	DESCRIPTION / LOCATION	LAB REF. NO:	Grain Siza Distribution 10	4.75	2.36	1.18	0.6	0.3	0.15	Sp Gr	Water Absorption %	Unit Weight gm/cc	REMARKS
21	From B1L1 RCC WORK	MR33	100.0	94.52	75.74	56.87	36.87	11.57	2.78				source
22	From Slab casting yard	MR34	100.0	93.76	75.04	56.72	36.8	12.24	2.96				om shree
23	From Slab casting yard	MR35	100.0	~~94.72~~ 94.73	76.18	57.09	36.73	11.09	2.45				
													crusher
													plant
Specifacation Limit is 383-1970 Zone -2			100-100	90-100	75-100	55-90	35-59	8-30	0-10				

SMEC-BRISBANE-AQUA-CEMAT-BDA

Approved by C.S.E

Test Checked by Junior Engineer

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 CUBE COMPRESSIVE STRENGTH TEST M15/20,M20/20& M25/20 Work Mix

FOR THE MONTH OF MARCH 2015

S.N.	Lab Ref No.	Date of Casting	Deatails of Mix	Location	Ratio by VOLUME				Material		Cube Crushing ,N/mm2		Remarks
				Structure	Water	Cement	Sand	Aggregate	Cement Brand	Aggregate/Sand	7 days	28-Days	
1	171	1/2/2015	M15 Work mix	B3L1 Leanear concrete pcc bed 1+145 to 1+160	0.52	1	2.33	4.17	Koshi	Om shree C/plant	10.67	16.22	
2	172	2/2/2015	M15 Work mix	B3L1 Leanear concrete pcc bed 1+160 to 1+180	0.52	1	2.33	4.17	Koshi	Om shree C/plant	N/C	16.44	
3	173	3/2/2015	M15 Work mix	B3L1 Leanear concrete pcc bed 1+185 to 1+195	0.52	1	2.33	4.17	Koshi	Om shree C/plant	6.11	15.11	
4	174	3/2/2015	M20 Work mix	B3L1 share wall 1+441	0.50	1	2	3.5	Koshi	Om shree C/plant	15.93	20.59	
5	175	5/2/2015	M20 Work mix	B3L1 1+431 share wall	0.50	1	2	3.5	Koshi	Om shree C/plant	13.11	21.11	
6	176	5/2/2015	M20 Work mix	B3L2 1+438	0.50	1	2	3.5	Koshi	Om shree C/plant	16.67	21.44	
7	177	9/2/2015	M20 Work mix	B3L1 1+140 Share wall	0.50	1	2	3.5	Koshi	Om shree C/plant	16.89	21.22	
8	178	10/2/2015	M25 Work mix	B1L2 Rcc Bed 0+570 to 0+600	0.46	1	2	3	Koshi	Om shree C/plant	20.00	28.11	
9	179	14/2/2015	M15 Work mix	B1L1 PCC Bed	0.52	1	2.33	4.17	Koshi	Om shree C/plant	8.89	16.11	
10	180	14/2/2015	M25 Work mix	B3L1 House crossing RCC	0.46	1	2	3	Koshi	Om shree C/plant	17.22	26.00	
11	181	14/2/2015	M25 Work mix	R2 Road Road crossing Top slab 1+700,1+500,1+850 LHS/RHS	0.46	1	2	3	Koshi	Om shree C/plant	20.33	26.11	
12	182	15/2/2015	M15 Work mix	R2 Road footh path 2+150 to 2+180	0.52	1	2.33	4.17	Koshi	Om shree C/plant	12.78	16.56	
13	183	17/2/2015	M25 Work mix	B3L1 House crossing Top slab 1+160,1+180,0+100	0.46	1	2	3	Koshi	Om shree C/plant	26.56	30.00	Near Cement Godam
14	184	18/2/2015	M20 Work mix	S9 Share wall	0.50	1	2	3.5	Koshi	Om shree C/plant	12.89	21.67	
15	185	19/2/2015	M20 Work mix	RANI 0+500 PCC Bed	0.50	1	2	3.5	Koshi	Om shree C/plant	16.67	21.67	
16	186	20/2/2015	M20 Work mix	S13L1F 0+210 to 0+250 pcc bed	0.50	1	2	3.5	Koshi	Om shree C/plant	15.67	22.22	
17	187	23/2/2015	M20 Work mix	S9 L1 Share Wall	0.50	1	2	3.5	Koshi	Om shree C/plant	18.89 / 13.4	21.89	
										Total Cube Crushed 69 nos			
				Specifacation Limit Table For M20/20 on 7 days Age Min 67% of Total Compressive Strength						Min Required	13.4	20	
				Specifacation Limit Table For M25/20 on 7 days Age Min 67% of Total Compressive Strength						Min Required	16.75	25	

SMEC-Brisbane-AQUA-BDA

Approved by Construction Supervision Engineer/CSE

Test checked by Junior Engineer

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

TEST RESULT SUMMARY SHEET For the Month of MARCH 2015

STIUEIP

COMPRESSIVE STRENGTH OF BRICKS (Process Control Test)

Ref. STIUEIP LAB/	Date of Testing	Location	Chanage	BRAND NAME 1 st class brick	Water Absorption	Compressive Strength N/mm2	SCALE OF Sample From
MR 121	1/3/2015	B1L1	Oil nigeon	SHREE		12.30 ✓	1500 Nos-5 Nos
MR122	1/3/2015	B1L1	Oil nigeon	SHREE		13.33 ✓	1500 Nos-5 Nos
MR123	1/3/2015	B2 DPS	0+107	SHREE		11.70 ✓	3000 Nos-5 Nos
MR124	11/3/2015	S13L1F	0+312	T&B		11.70 ✓	4500 Nos-5 Nos
MR125	11/3/2015	R2 Road	3+700	Ambey		10.65 ✓	4500 Nos-5 Nos
MR126	11/3/2015	S13 L1F	0+350	T&B		12.52 ✓	4500 Nos-5 Nos
MR127	11/3/2015	S13L1F	0+350	Ambey		13.97 ✓	4500 Nos-5 Nos
MR128	11/3/2015	S13L1F	0+312	T&B		11.68 ✓	4500 Nos-5 Nos
MR129	11/3/2015	R2 Road	3+100	SHREE		12.71 ✓	4500 Nos-5 Nos
MR 130	12/3/2015	R2 Road	3+760	Ambey		13.84 ✓	4500 Nos-5 Nos

Remarks:

Specification	IS1077,IS2180or NS1/2035	↧0%<	> 10N/MM2 ±5%

SMEC-Brisbane-AQUA-BDA-CEMAT

Approved by Construction Supervision Engineer

Test Checked by Junior Engineer

Consultantr Reps

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Secondary Towns Integrated Uraban Environmental Improvement Project

Biratnagar Sub-Metropolitant City

TEST RESULT SUMMARY SHEET For the Month of MARCH 2015

STIUEIP

COMPRESSIVE STRENGTH OF BRICKS (Process Control Test)

Ref. STIUEIP LAB/	Date of Testing	Location	Chanage	BRAND NAME 1 st class brick	Water Absorption	Compressive Strength N/mm2	SCALE OF Sample From
MR131	12/3/2015	R2 Road	3+760	Ambey		12.39 ✓	1500 Nos-5 Nos
MR132	13/3/2015	Oil Nigeon	0+140	Ambey		12.37 ✓	4500 Nos-5 Nos
MR133	13/3/2015	Oil Nigeon	0+140	Ambey		11.26 ✓	4500 Nos-5 Nos
MR134	13/3/2015	Sewarage line	Yadev chowck	Ambey		15.20 ✓	4500 Nos-5 Nos
MR135	15/3/2015	Sewarage line	Yadev chowck	Ambey		10.56 ✓	4500 Nos-5 Nos
MR136	16/3/2015	R2 Road	1+340 RHS/LHS	HIMAL		11.01 ✓	1500 Nos-5 Nos
MR137	16/3/2015	S13 L1F	0+330 RHS	T&B		15.34 ✓	1500 Nos-5 Nos
MR138	16/3/2015	S13L1F	0+330 RHS	T&B		13.79 ✓	1500 Nos-5 Nos
MR139	16/3/2015	R2 Road	3+700 RHS/LHS	HIMAL		11.81 ✓	3000 Nos-5 Nos
MR140	16/3/2015	R2 Road	3+300 RHS/LHS	HIMAL		14.05 ✓	3000 Nos-5 Nos

Remarks:

Specification	IS1077,IS2180or NS1/2035	±0%<	> 10N/MM2 ±5%

SMEC-Brisbane-AQUA-BDA-CEMAT	CTCE-KALIKA J/V
Approved by Construction Supervision Engineer	Submitted by Project Manager
Test Checked by Junior Engineer	Test conducted by Q.C Manager
Consultantr Reps	Contractor Reps

Secondary Towns Integrated Uraban Environmental Improvement Project

Biratnagar Sub-Metropolitant City

TEST RESULT SUMMARY SHEET For the Month of MARCH 2015

STIUEIP

COMPRESSIVE STRENGTH OF BRICKS (Process Control Test)

Ref. STIUEIP LAB/	Date of Testing	Location	Chanage	BRAND NAME 1 st class brick	Water Absorption	Compressive Strength N/mm2	SCALE OF Sample From
MR141	19/3/2015	R2 Road	4+100	Himal		14.90 ✓	1500 Nos-5 Nos
MR142	19/3/2015	R2 Road	4+120	Himal		12.04 ✓	3000 Nos-5 Nos
MR 143	23/3/2015	Sewarage line	Prativa chowck	T&B		13.10 ✓	3000 Nos-5 Nos
MR144	24/3/2015	RANI	0+230	AAFANTA		12.89 ✓	3000 Nos-5 Nos
MR145	24/3/2015	T2 Trunk line	0+440	T&B		12.30 ✓	4500 Nos-5 Nos
MR146	24/3/2015	S13L1F	0+112	T&B		11.98 ✓	4500 Nos-5 Nos
MR147	24/3/2015	T2 Trunk line	0+440	SHREE		13.77 ✓	4500 Nos-5 Nos
MR148	24/3/2015	T2 Trunk line	0+330	SHREE		11.63 ✓	4500 Nos-5 Nos
MR149	24/3/2015	T2 Trunk line	0+400	SHREE		14.17 ✓	4500 Nos-5 Nos
MR150	24/3/2015	T2 Trunk line	Yadev Chowck	SHREE		11.93 ✓	4500 Nos-5 Nos

Specification	IS1077,IS2180or NS1/2035	I0%<	> 10N/MM2 ±5%

SMEC-Brisbane-AQUA-BDA-CEMAT	CTCE-KALIKA J/V
Approved by Construction Supervision Engineer	Submitted by Project Manager
Test Checked by Junior Engineer	Test conducted by Q.C Manager
Consultantr Reps	Contractor Reps

Secondary Towns Integrated Uraban Environmental Improvement Project

Biratnagar Sub-Metropolitant City

TEST RESULT SUMMARY SHEET For the Month of MARCH 2015

STIUEIP

COMPRESSIVE STRENGTH OF BRICKS (Process Control Test)

Ref. STIUEIP LAB/	Date of Testing	Location	Chanage	BRAND NAME 1 st class brick	Water Absorption	Compressive Strength N/mm2	SCALE OF Sample From
MR151	25/3/2015	B1L2	Oil nigeon	Ambey		13.26 ✓	4500 Nos-5 Nos
MR152	25/3/2015	B1L2	Oil nigeon	Ambey		11.65 ✓	4500 Nos-5 Nos
MR153	25/3/2015	RANI RL1L4	0+680	SHREE		12.88 ✓	3000 Nos-5 Nos
MR154	25/3/2015	RANI RL1L4	0+660to 0+680	SHREE		14.36 ✓	3000 Nos-5 Nos
MR155	25/3/2015	RANI RL1L4	0+660to 0+680	SHREE		14.55 ✓	3000 Nos-5 Nos
MR156	25/3/2015	RANI RL1L4	0+660to 0+680	SHREE		12.88 ✓	3000 Nos-5 Nos
MR157	26/3/2015	B1L2	Oil Nigeon	AMBEY		13.94 ✓	3000 Nos-5 Nos
MR158	26/3/2015	B1L2	0+410	T&B		13.15 ✓	3000 Nos-5 Nos
MR159	31/3/2015	RANI RL1L4	0+670	AMBEY		14.20 ✓	1500 Nos-5 Nos
MR 160	31/3/2015	Sewarage line	0+470	AMBEY		~~13.56~~ 13.35	1500 Nos-5 Nos

Specification	IS1077,IS2180or NS1/2035	±0%<	> 10N/MM2 ±5%

SMEC-Brisbane-AQUA-BDA-CEMAT

Approved by Construction Supervision Engineer

Test Checked by Junior Engineer

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

BiratnagarSub-Metropolitant City

CEMENT TEST SUMMERY

For the Month of MARCH 2015

S.N.	Lab. Ref. NO.	Description of cement	Testing Date	Consistency & Setting Time			Remarks
				Norm. Const.	Intial(min.)	Final(min.)	
1	MR12	KOSHI OPC	2/3/2015	32.00	235	410	All Cement
2	MR13	SHIVAM OPC G43	8/3/2015	30.29	150	260	Are
3	MR14	SHIVAM OPC G43	12/3/2015	32.60	130	240	Nepali
4	MR15	SHIVAM OPC G43	16/3/2015	33.14	120	235	
5	MR16	SHIVAM OPC G43	20/3/2015	30.00	135	235	
6	MR17	SHIVAM OPC G43	24/3/2015	30.86	130	240	
7	MR18	SHIVAM OPC G43	26/3/2015	31.14	190	250	Branded
8	MR19	SHIVAM OPC G43	29/3/2015	32.00	165	230	opc
Requirements in accordance with BS 12					> 45 Min.	10 Hrs	

SMCE-Brisbane-AQUA-BDA
Approved by C.S.E
Test Checked by Junior Engineer
Consultant Reps

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

SECONDARY TOWN INTEGRATED URABAN ENVIRONMENTAL IMPROVEMENT PROJECT

Biratnagar-Sub-Metropolitant City

SUMMERY OF THE MOTAR WORK MIX CUBE FOR THE MONTH OF MARCH2015

S.N.	Cube No.	Name of Cement	Location/Structure	Details of MIX	Casting Date	Consistency & Setting Time			7 day's cube Crushing		28 day's cube crushing		Remarks
						Norm. Const.	Intial(min.)	Final(min.)	Date	Str. N/mm2	Date	Str. N/mm2	
1	113	Koshi	R2 Road 2+400 to 2+250	1:4 by volume	1/2/2015	33.00	255	325	8/2/2015	6.94	1/3/2015	7.96	
2	114	Koshi	R2 Road 2+300	1:4 by volume	2/2/2015	33.00	255	325	9/2/2015	N/C	2/3/2015	8.57	
3	115	Koshi	R2 Road 2+350	1:4 by volume	3/2/2015	33.00	255	325	10/2/2015	2.04	3/3/2015	8.78	
4	116	Koshi	CN3 0+950	1:4 by volume	5/2/2015	33.00	255	325	12/2/2015	2.12 ~~3.12~~	5/3/2015	8.98	
5	117	Koshi	R2 Road 1+450	1:4 by volume	5/2/2015	33.00	255	325	12/2/2015	8.37	5/3/2015	9.59	
6	118	Koshi	CN3L2 0+950	1:4 by volume	6/2/2015	33.00	255	325	13/2/2015	2.04	6/3/2015	7.35	
7	119	Koshi	CN3L2 0+360	1:4 by volume	6/2/2015	33.00	255	325	13/2/2015	3.27	6/3/2015	6.94	
8	120	Koshi	CN3L2 0+380	1:4 by volume	9/2/2015	33.00	255	325	16/2/2015	5.92	9/3/2015	10.00	
9	121	Koshi	S13L1F 0+810	1:4 by volume	9/2/2015	33.00	255	325	16/2/2015	8.57	9/3/2015	10.41	
10	122	Koshi	R2 Road 3+400	1:4 by volume	12/2/2015	33.00	255	325	19/2/2015	5.51	12/3/2015	10.00	
11	123	Shivam	RANI 0+480	1:4 by volume	17/2/2015	32.00	130	240	24/2/2015	8.16	17/3/2015	10.00	
12	124	Shivam	RANI 0+490	1:4 by volume	18/2/2015	32.00	130	240	25/2/2015	7.76	18/3/2015	8.98	
13	125	Shivam	R2 Road 3+550	1:4 by volume	18/2/2015	32.00	130	240	25/2/2015	7.76	18/3/2015	10.20	
14	126	Shivam	RANI 0+500	1:4 by volume	19/2/2015	32.00	130	240	26/2/2015	7.70	19/3/2015	9.80	
15	127	Shivam	R2 Road 3+500	1:4 by volume	20/2/2015	32.00	130	240	27/2/2015	8.78	20/3/2015	9.80	
16	128	Shivam	RANI 0+530	1:4 by volume	20/2/2015	32.00	130	240	27/2/2015	7.14	20/3/2015	9.59	
17	129	Shivam	R2 Road 3+600	1:4 by volume	23/2/2015	32.00	130	240	2/3/2015	8.16	23/3/2015	9.59	
18	130	Shivam	R2 Road 3+650	1:4 by volume	24/2/2015	32.00	130	240	3/3/2015	4.29	24/3/2015	8.57	
19	131	Shivam	B2 DPS Line	1:4 by volume	1/3/2015	32.00	165	230	8/3/2015	5.31	29/3/2015	7.07	
20	132	Shivam	CN2	1:4 by volume	1/3/2015	32.00	165	230	8/3/2015	6.26	29/3/2015	8.44	
				1:4 by volume					Total cube crushed		81		

According to is 2250-1981

MIN 45m Max 600m Required strength on 28 days not less than 5 or 7.5 N/MM2

SMEC-Brisbane-AQUA-BDA-CEMAT

Approved by Construction Supervision Engineer/CSE

Test Checked by Junior Engineer

Consultants Reps

CTCE-KALIKA J/V

Submitted by Project Manager

Test conducted by Q.C Manager

Contractore Reps

SECONDARY TOWNS INTEGRATED URABAN ENVIRONMENTAL IMPROVEMENT PROJECT

Biratnagar Sub-Metropolitant City

SUMMARY OF CUBE COMPRESSIVE STRENGTH TEST M20/20 SLAB CASTING WORK MIX

FOR THE MONTH OF MARCH 2015

S.N.	Lab Ref No.	Date of Casting	Deatails of Mix	Location	Ratio by VOLUME				Materials		Cube Crushing ,N/mm2		Remarks
				Structure	Water	Cement	Sand	Aggregate	Cement Brand	Aggregate/Sand	7 days	28-Days	
1	MR 61	31/01/2015	M20 Work mix	SLAB YARD	0.50	1	2	3.5	KOSHI	Om shree C/plant	14.44	21.20	
2	MR62	13/2/2015	M20 Work mix	SLAB YARD	0.50	1	2	3.5	KOSHI	Om shree C/plant	15.00	20.40	
3	MR63	22/2/2015	M20 Work mix	SLAB YARD	0.50	1	2	3.5	KOSHI	Om shree C/plant	16.11	22.22	
4	MR64	24/2/2015	M20 Work mix	SLAB YARD	0.50	1	2	3.5	KOSHI	Om shree C/plant	15.70	21.30	
5	MR65	28/2/2015	M20 Work mix	SLAB YARD	0.50	1	2	3.5	KOSHI	Om shree C/plant	16.40	20.70	
6	MR66	1/3/2015	M20 Work mix	SLAB YARD	0.50	1	2	3.5	KOSHI	Om shree C/plant	15.00	21.30	
7	MR67	4/3/2015	M20 Work mix	SLAB YARD	0.50	1	2	3.5	KOSHI	Om shree C/plant	16.20		
8	MR68	6/3/2015	M20 Work mix	SLAB YARD	0.50	1	2	3.5	KOSHI	Om shree C/plant	15.70		
9	MR69	8/3/2015	M20 Work mix	SLAB YARD	0.50	1	2	3.5	KOSHI	Om shree C/plant	17.50		
10	MR70	10/3/2015	M20 Work mix	SLAB YARD	0.50	1	2	3.5	KOSHI	Om shree C/plant	15.30		
11	MR71	12/3/2015	M20 Work mix	SLAB YARD	0.50	1	2	3.5	KOSHI	Om shree C/plant	16.10		
12	MR72	15/3/2015	M20 Work mix	SLAB YARD	0.50	1	2	3.5	KOSHI	Om shree C/plant	16.40		
13	MR73	16/3/2015	M20 Work mix	SLAB YARD	0.50	1	2	3.5	KOSHI	Om shree C/plant	17.80		
14	MR74	18/3/2015	M20 Work mix	SLAB YARD	0.50	1	2	3.5	KOSHI	Om shree C/plant	16.70		
15	MR75	20/3/2015	M20 Work mix	SLAB YARD	0.50	1	2	3.5	KOSHI	Om shree C/plant	16.70		
16	MR76	22/3/2015	M20 Work mix	SLAB YARD	0.50	1	2	3.5	KOSHI	Om shree C/plant	16.60		
17	MR77	23/3/2015	M20 Work mix	SLAB YARD	0.50	1	2	3.5	KOSHI	Om shree C/plant	17.40		
										Total cube crushed 62 nos on March			

Specifacation Limit Table For M20/20 on 7 days Age Min 67% of Total Compressive Strength — Min Required 13.4 20

SMEC-Brisbane-AQUA-BDA	CTCE-KALIKA J/V
Approved by Construction Supervision Engineer/CSE	Submitted by Project Manager
Test checked by Junior Engineer	Test conducted by Q.C Manager
Consultants Reps	Contractors Reps

SECONDARY TOWNS INTEGRATED URABAN ENVIRONMENTAL IMPROVEMENT PROJECT

Biratnagar Sub-Metropolitant City

SUMMARY OF CUBE COMPRESSIVE STRENGTH TEST M20/20 KERB STONE WORK MIX FOR THE MONTH OF MARCH 2015

S.N.	Lab Ref No.	Date of Casting	Deatails of Mix	Location	Ratio by VOLUME				Materials		CubeCrushing ,N/mm2		Remarks
				Structure	Water	Cement	Sand	Aggregate	Cement Brand	Aggregate/Sand	7 days	28-Days	
1	8K	7/2/2015	M20 Work mix	KERB STONE YARD	0.50	1	2	3.5	SHIVAM	Om shree C/plant	15.80	21.60	
2	9K	20/2/2015	M20 Work mix	KERB STONE YARD	0.50	1	2	3.5	SHIVAM	Om shree C/plant	16.00	21.20	
3	10K	21/2/2015	M20 Work mix	KERB STONE YARD	0.50	1	2	3.5	SHIVAM	Om shree C/plant	15.60	21.00	
4	11K	22/2/2015	M20 Work mix	KERB STONE YARD	0.50	1	2	3.5	SHIVAM	Om shree C/plant	14.20	20.30	
5	12K	24/02/2015	M20 Work mix	KERB STONE YARD	0.50	1	2	3.5	SHIVAM	Om shree C/plant	15.10	21.40	
6	13K	27/2/2015	M20 Work mix	KERB STONE YARD	0.50	1	2	3.5	SHIVAM	Om shree C/plant	15.10	22.00	
7	14K	4/3/2015	M20 Work mix	KERB STONE YARD	0.50	1	2	3.5	SHIVAM	Om shree C/plant	16.00		
8	15K	6/3/2015	M20 Work mix	KERB STONE YARD	0.50	1	2	3.5	SHIVAM	Om shree C/plant	13.60		
9	16K	9/3/2015	M20 Work mix	KERB STONE YARD	0.50	1	2	3.5	SHIVAM	Om shree C/plant	16.90		
										Total cube crushed 47 nos			

Specifacation Limit Table For M20/20 on 7 days Age Min 67% of Total Compressive Strength — Min Required 13.4 20

SMEC-Brisbane-AQUA-BDA	CTCE-KALIKA J/V
Approved by Construction Supervision Engineer/CSE	Submitted by Project Manager
Test checked by Junior Engineer	Test conducted by Q.C Manager
Consultants Reps	Contractors Reps

SECONDARY TOWNS INTEGRATED URABAN ENVIRONMENTAL IMPROVEMENT PROJECT

Biratnagar Sub-Metropolitant City

SUMMARY OF CUBE COMPRESSIVE STRENGTH TEST M30/20 MAN HOLE CASTING WORK MIX

FOR THE MONTH OF MARCH 2015

S.N.	Lab Ref No.	Date of Casting	Deatails of Mix	Location	Ratio by MASS				Materials		Cube Crushing ,N/mm2		Remarks
				Structure	Water	Cement	Sand	Aggregate	Cement Brand	Aggregate/Sand	7 days	28-Days	
1	MR01	1/2/2015	M30 Work mix	MANHOLE YARD	0.40	1	1.5	2.4	SHIVAM	Om shree C/plant	21.10	30.10	
2	MR02	3/2/2015	M30 Work mix	MANHOLE YARD	0.40	1	1.5	2.4	SHIVAM	Om shree C/plant	20.70	30.00	
3	MR03	4/2/2015	M30 Work mix	MANHOLE YARD	0.40	1	1.5	2.4	SHIVAM	Om shree C/plant	20.90	32.20	
4	MR04	22/2/2015	M30 Work mix	MANHOLE YARD	0.38	1	1.4	2.3	SHIVAM	Om shree C/plant	25.00	32.40	New mix Design
5	MR05	23/2/2015	M30 Work mix	MANHOLE YARD	0.38	1	1.4	2.3	SHIVAM	Om shree C/plant	21.90	32.20	
6	MR06	10/3/2015	M30 Work mix	MANHOLE YARD	0.38	1	1.4	2.3	SHIVAM	Om shree C/plant	20.40		
7	MR07	11/3/2015	M30 Work mix	MANHOLE YARD	0.38	1	1.4	2.3	SHIVAM	Om shree C/plant	23.60		
8	MR08	15/3/2015	M30 Work mix	MANHOLE YARD	0.38	1	1.4	2.3	SHIVAM	Om shree C/plant	27.10		
9	MR09	17/3/2015	M30 Work mix	MANHOLE YARD	0.38	1	1.4	2.3	SHIVAM	Om shree C/plant	24.10		
10	MR10	25/3/2015	M30 Work mix	MANHOLE YARD	0.38	1	1.4	2.3	SHIVAM	Om shree C/plant			
11	MR11	26/3/2015	M30 Work mix	MANHOLE YARD	0.38	1	1.4	2.3	SHIVAM	Om shree C/plant			
12	MR12	30/3/2015	M30 Work mix	MANHOLE YARD	0.38	1	1.4	2.3	SHIVAM	Om shree C/plant			
13	MR13	31/3/2015	M30 Work mix	MANHOLE YARD	0.38	1	1.4	2.3	SHIVAM	Om shree C/plant			
										Total cube crushed 32 nos on March			

Specifacation Limit Table For M30/20 on 7 days Age Min 67% of Total Compressive Strength — Min Required 20.1 30

SMEC-Brisbane-AQUA-BDA

Approved by Construction Supervision Engineer/CSE

Test checked by Junior Engineer

Consultants Reps

CTCE-KALIKA J/V

Submitted by Project Manager

Test conducted by Q.C Manager

Contractors Reps

SECONDARY TOWN INTEGRATED URABAN ENVIRONMENTAL IMPROVEMENT PROJECT

BIRATNAGAR Sub-Metropolitant City

Monthly Laboratory Testing Report

(For The Month OF MARCH 2015)

STIUEIP

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	2	0	0			2	
		MDD & OMC							
		C.B.R							
		Field Density							
2	SUB GRADE Preparation asPere Specifacation	MDD & OMC	1	3	3			4	
		Field density							
		C.B.R	1	3	2	1		4	
3	BRICK WORK	Water Absorption	175	0	0	0		175	
	Required Test	Compressive Strength	630	204	200	4		834	
4	Masonry Mortar (CM 7.05)	Compressive strength	520	206	200	6		726	
5	CONCRETE AGGREGATE								
	Coarse aggregate (20 mm)	Sieve analysis (20 mm)	12	23	23	0		35	
		LAA	6	18	18	0		24	
		Specific Gravity	2	6	6	0		8	
		FI / EI	6	23	23	0		29	
		ACV	6	19	19	0		25	
		SSS							
		Unit weight	2	0	0	0		2	
	Fine aggregate (Sand)	Sieve analysis	11	23	23	0		34	
		Sand Equivalent Test(S.E)							
		Unit weight	2					2	
6	CONCRETE MIX DESIGN	Concrete mix Design	64	1	Awaiting	1		66	
	ConcreteM15/20,M20/20	Compressive strength	390	12	Awaiting	12 Previous month		402	
	M25/20,&M30/20	Slump test	72					72	
7	CEMENT Required Test								
	OPC Cement	Setting time	11	8	8	0		19	
		Normal Consistency	11	8	8	0		19	
		Compressive strength	38	0	0			38	
8	CONCRETE								
	Work Mix Test M15,M20,M25,M30	Compressive strength	1064	289	282	7		1353	
9	REINFORCEMENT	Required Test							8,10,12,16
	Reinforcement tore steel	As per Specifacation	2	0				2	20,25 mm dia
10	PAVEMENT MATERIALS								
	Sub Base Materials	Sieve analysis	0	2	2	0		2	
		MDD & OMC	0	2	2	0		2	

SECONDARY TOWN INTEGRATED URABAN ENVIRONMENTAL IMPROVEMENT PROJECT

BIRATNAGAR Sub-Metropolitant City

Monthly Laboratory Testing Report

(For The Month OF MARCH 2015)

STIUEIP

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		
		PI	0	0	0	0		0	
		CBR	0	2	2	0		2	
		Field density							
11	Back Fill Material	Sieve analysis							
		MDD & OMC							
		Field density							
		CBR							
12	CS Base	Sieve analysis	0	2				2	
	Crushed Stone Base	MDD & OMC	0	2				2	
	Material Laying	C.B.R	0	2				2	
		FI + EI	0	1				1	
		LAA	0	1				1	
		SSS	0	0				0	
		ACV/AIV	0	1				1	
		Field Density							
13	ASHPHALT CONCRETE	Sieve analysis							
	Combine Mixed	FI / EI							
		ACV							
	Individual Ca&FA Test	LAA							
		Unit weight							
		SSS							
14	BITUMEN TEST	Penetration at25.c	0	2	2			2	
	80/100 Bitumen	Softeing point(ring ball)	0	2	2			2	
	As per DORbook section	Flash point/Fire Point	0	2	2			2	
	600 Table 6.14/is 73	Ductility at25.c	0	2	2			2	
		Specific at 25.c	0	2	2			2	

SECONDARY TOWN INTEGRATED URABAN ENVIRONMENTAL IMPROVEMENT PROJECT

BIRATNAGAR Sub-Metropolitant City

Monthly Laboratory Testing Report

(For The Month OF MARCH 2015)

STIUEIP

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		
		Water Content	0	2	2			2	
		Loss on Heating for 5 hrs	0	2	2			2	
		Pen- of residue after loss on Heating		2	2			2	
		Solubility in tricloroethylene	0	2	2			2	
15	Humpipe Test	Three Edge Bearing Load Test	2	0	0			2	200mm to 1600mm 1 each
16	Marshall Stability Test	Bulk density							
		Stability							
		Flow							
		Air voides							
		Bitumen extraction							
		Voids in Mineral Agg.							
		Job mix in AC Plant							
		Core Field Density							
17	BITUMEN SPREAD TEST								
	Prime coat	Application rate							
	Tack coat	Application rate							
18	Machines/Equipment								
	Caliberation of compressive		2						2
	Testing machine								
	1000&500 KN Manuall								
19	MISCELLANEOUS								
	G.I Wire(Gabion Boxes)		5						5
	Factory Test Report of Cement		8						8
	Factory Test Report of Iron Steel		4						4
	Factory Test Report of 80/100 Bitumen		2						2
	Factory Test Report of UPVC/HDP Pipe		2						2

MDD/OMC = Max Dry Dennsity/ Optimum Moisture Content

SSS = Sodium Sulphate Soundness

LAA = Los Angeles Abrasion

SE=Sand Equivqlent

ACV = Aggregtae Crushing Value

AIV=Aggregate Impact Value

JMC=Job Mix Formula

CBR=California Bearing Ratio

SECONDARY TOWN INTEGRATED URABAN ENVIRONMENTAL IMPROVEMENT PROJECT

Biratnagar-Sub-Metropolitant City

SUMMERY OF THE MOTAR WORK MIX CUBE FOR THE MONTH OF MARCH2015

S.N.	Cube No.	Name of Cement	Location/Structure	Details of MIX	Casting Date	Consistency & Setting Time			7 day's cube Crushing		28 day's cube crushing		Remarks
						Norm. Const.	Intial(min.)	Final(min.)	Date	Str. N/mm2	Date	Str. N/mm2	
21	133	Shivam	RANI	1:4 by volume	2/3/2015	32.00	165	230	9/3/2015	4.63	30/3/2015	8.57	
22	134	Shivam	RANI	1:4 by volume	3/3/2015	32.00	165	230	10/3/2015	5.03	31/3/2015	9.66	
23	135	Shivam	R2 Road 3+710	1:4 by volume	3/3/2015	32.00	165	230	10/3/2015	4.49	31/3/2015	7.62	
24	136	Shivam	Oil Nigeon	1:4 by volume	5/3/2015	32.00	165	230	12/3/2015	6.39	2/4/2015		
25	137	Shivam	Sewerage Line	1:4 by volume	5/3/2015	32.00	165	230	12/3/2015	5.71	2/4/2015		
26	138	Shivam	R2 Road 3+720	1:4 by volume	8/3/2015	30.29	150	260	15/3/2015	5.85	5/4/2015		
27	139	Shivam	R2 Road 3+730	1:4 by volume	10/3/2015	30.29	150	260	17/3/2015	6.26	7/4/2015		
28	140	Shivam	R2 Road 3+740	1:4 by volume	11/3/2015	30.29	150	260	18/3/2015	6.12	8/4/2015		
29	141	Shivam	Oil Nigeon	1:4 by volume	12/3/2015	32.60	130	240	19/3/2015	7.76	9/4/2015		
30	142	Shivam	Sewerage Line Prativa Chowck	1:4 by volume	13/3/2015	32.60	130	240	20/3/2015	6.26 ~~6.33~~	10/4/2015		
31	143	Shivam	Sewerage Line Prativa Chowck	1:4 by volume	14/3/2015	32.60	130	240	21/3/2015	7.07	11/4/2015		
32	144	Shivam	R2 Road 3+750 LHS	1:4 by volume	14/3/2015	32.60	130	240	21/3/2015	7.21	11/4/2015		
33	145	Shivam	S13 L1F	1:4 by volume	15/3/2015	32.60	130	240	22/3/2015	7.48	12/4/2015		
34	146	Shivam	R2 Road 3+750 LHS	1:4 by volume	16/3/2015	33.14	120	235	23/3/2015	7.76	13/4/2015		
35	147	Shivam	Oil Nigeon	1:4 by volume	16/3/2015	33.14	120	235	23/3/2015	9.93	13/4/2015		
36	148	Shivam	Oil Nigeon	1:4 by volume	17/3/20215	33.14	120	235	24/3/2015	8.98	14/4/2015		
37	149	Shivam	Oil Nigeon	1:4 by volume	17/3/2015	33.14	120	235	24/3/2015	7.21	14/4/2015		
38	150	Shivam	S13L1f 0+300	1:4 by volume	18/3/2015	33.14	120	235	25/3/2015	7.62	15/4/2015		
39	151	Shivam	RANI	1:4 by volume	19/3/2015	33.14	120	235	26/3/2015	6.53	16/4/2015		
40	152	Shivam	Sewerage Line Prativa Chowck	1:4 by volume	21/3/2015	30.00	135	235	28/3/2015	6.53	17/4/2015		

Total cube crushed 60

According to is 2250-1981

MIN 45m Max 600m Required strength on 28 days not less than 5 or 7.5 N/MM2

SMEC-Brisbane-AQUA-BDA-CEMAT

Approved by Construction Supervision Engineer/CSE

Test Checked by Junior Engineer

Consultants Reps

CTCE-KALIKA J/V

Submitted by Project Manager

Test conducted by Q.C Manager

Contractore Reps

SECONDARY TOWN INTEGRATED URABAN ENVIRONMENTAL IMPROVEMENT PROJECT

Biratnagar-Sub-Metropolitant City

SUMMERY OF THE MOTAR WORK MIX CUBE FOR THE MONTH OF MARCH2015

S.N.	Cube No.	Name of Cement	Location/Structure	Details of MIX	Casting Date	Consistency & Setting Time			7 day's cube Crushing		28 day's cube crushing		Remarks
						Norm. Const.	Intial(min.)	Final(min.)	Date	Str. N/mm2	Date	Str. N/mm2	
41	153	Shivam	RANI	1:4 by volume	21/3/2015	30.00	135	235	28/3/2015	6.53	17/4/2015		
42	154	Shivam	Sewarage line Yadev Chowck	1:4 by volume	21/3/2015	30.00	135	235	28/3/2015	6.94	17/4/2015		
43	155	Shivam	Sewarage line National Trading	1:4 by volume	22/3/2015	30.00	135	235	29/3/2015	8.44	18/4/2015		
44	156	Shivam	Sewarage line Yadev Chowck	1:4 by volume	22/3/2015	30.00	135	235	29/3/2015	7.21	18/4/2015		
45	157	Shivam	Sewarage line Yadev Chowck	1:4 by volume	23/3/2015	30.00	135	235	30/3/2015	7.21	20/4/2015		
46	158	Shivam	R2 Road 3+650	1:4 by volume	23/3/2015	30.00	135	235	30/3/2015	7.35	20/4/2015		
									Total cube crushec		18		

According to is 2250-1981

MIN 45m Max 600m Required strength on 28 days not less than 5 or 7.5 N/MM2

SMEC-Brisbane-AQUA-BDA-CEMAT

Approved by Construction Supervision Engineer/CSE

Test Checked by Junior Engineer

Consultants Reps

CTCE-KALIKA J/V

Submitted by Project Manager

Test conducted by Q.C Manager

Contractore Reps

SECONDARY TOWNS INTEGRATED URABAN ENVIRONMENTAL IMPROVEMENT PROJECT

Biratnagar Sub-Metropolitant City

SUMMERY OF LAB TEST RESULT OF SUB GRADE

(For the Month of MARCH 2015)

S.N.	LAB REF. NO.	DESCRIPTION OF MATERIAL	TYPE OF MAT.	Chanage/Location	Modified ProctorGm/CC		CBR	Field	REMARKS
					MDD	OMC	%	Density,%	
1	MR12	R15 JANANI MARG	CLAY Soil	R15	1.968	9.5	3.6		NOTE
2	MR15	R5&R65SathGhumti Mode	Mixed soii&Sandy	R5&R65	1.99	8.5	5.25		
3	MR18	R2 Road shoulder from 1+100to 2+950 LHS/RHS	Mixed soil&Sandy	R2 RoadShoulder	1.932	9.6	5.6		
REQUIREMENT LIMITS							Min.	Min.	
AS PER Standard Specification For Roade and Bridge worksSection 1003(1)/AASHTO T 193-81							5%	95%	

SMEC-Brisbane-AQUA-CEMAT-BDA
Approved by C.S.E
Test Checked by Junior Engineer

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

SECONDARY TOWNS INTEGRATED URABAN ENVIRONENTAL IMPROVEMENT PROJECT

Biratnagar Sub-Metropolitant City **STIUEIP**

MONTHLY Test Result Summary Sheet For The Month of MARCH 2015

GRAVEL MATERIAL/SUB BASE (Process Control)

According to Part 2.Section 6A-Technical Specifacations&DOR Specifacation Section 1201(3)C Physical Requirement

Ref. No.	Date Tested	Location/ Chainage	Grading sieve size (mm) (% passing by weight)								Lab. OMC (%)	Soaked CBR (%)	Lab. MDD (g/cc)	Remarks
			63	37.5	20	10	5	2.23	1.18	0.075				
MR12	4/3/2015	Fromoil nigeon stock yard/Seauti	100	88.95	74.58	59.11	45.64	38.07	26.8	5.35	8.25	51	2.245	over size 15% un screen
MR13	9/3/2015	From Chisang Letang Crusher Plant	100	92.41	75.38	63.02	46.01	38.48	17.12	5.08	8.4	44	2.250	Screeen on Crusher plant yard
Required Specifacation			100	65-95	50-85	40-75	30-60	20-45	15-37	4-15		≥ 30		

NOTE:

SMEC-Brisbane-AQUA-CEMAT-BDA	**CTCE-KALIKA J/V**
Approved by C.S.E	Submit by Project Manager
Test Checked by Junior Engineer	Test Conducted by Q.C Manager
Consultant Reps	Consultant Reps

SECONDARY TOWNS INTEGRATED URABAN ENVIRONENTAL IMPROVEMENT PROJECT

Biratnagar Sub-Metropolitant City

STIUEIP

MONTHLY Test Result Summary Sheet For The Month of MARCH 2015

Graded Crushed Stone Base Course (Process Control)

STANDARD SPECIFICATION FOR ROAD AND BRIDGE WORKS SECTION 1200 Table 12.3 Physical Requirement of Graded Crushed Stone Base

Ref. No.	Date Tested	Location/ Chainage	Grading sieve size (mm) (% passing by weight)								FI (%)	LAA (%)	AIV (%)	Lab. OMC (%)	Soaked CBR (%)	Lab. MDD (g/cc)	Remarks
			40	31.5	20	10	4.75	2.36	0.60	0.075							
MR14	11/3/2015	From om shree crusher plant	100	92.3	68.1	48.6	34.1	28.2	15.6	5.8	20.49	29.76	17.71	6.5	97	2.305	
			100	91.7	65.1	54.1	40.4	33.2	18	6.8							
Required Specifacation			100	85-100	62-92	40-70	26-55	21-53	12-28	2-10	≤ 25	≤ 30	≤ 20		≥ 80		

REMARKS:Crushed Stone base Blended grading on 40mm crushed=30%,20mm crushed=20%,10mm crushed=10%,Stone dust=40%(Ratio 3:2:1:4) Achived to Meet Target Grading well

SMEC-Brisbane-AQUA-CEMAT-BDA	**CTCE-KALIKA J/V**
Approved by C.S.E	Submit by Project Manager
Test Checked by Junior Engineer	Test Conducted by Q.C Manager
Consultant Reps	Consultant Reps

ANNEX-8: CONTRACTOR'S PROGRESS REPORT- MARCH 2015

Table of Contents

1 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
Completion Date	25th of May 2016
Contract Period	30 month
Contract amount with Provisional Sum	NRs 2,119,054,525.90
Add 13% VAT	NRs 272,278,000.00
Grand Total Contract amount with VAT&PS	NRs 2,391,332,525.90

2 Introduction

This Secondary Town Integrated Urban Environmental Improvement Project (STIUEIP), Sewerage and Drainage Network, Wastewater Treatment Plant and Lanes Improvement Subproject Biratnagar is funded by Asian Development Bank and Government of Nepal. The project area is in the Morang district, Biratnagar Sub-metropolitan City which lies in the Eastern Part of Nepal.

3 Sub-Project Components

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

- Sewerage and Drainage Network Subproject
  A separate system of storm water drainage and sewer line will be constructed at Biratnagar under this project.
- Wastewater Treatment Plant Subproject
  A Waste Water Treatment Plant(WWTP) will be constructed at Jatuwa, draining the wastewater finally to Singhiya River.
- Road and Lanes Improvement Subproject
  Existing road sections at different part of Biratnagar will be upgraded providing proper drainage facility.

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 bythe 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 toaccess to the Site, or other related matters, where his opinion differ significantly fromthose produced by the Employer.
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 andthe maintenance of services during the execution of the Works, including diversion ofoverhead with underground power lines, telephone ducts, water supply mains

anddistribution lines (pipes), sewers and other underground services as required alongthe 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 forensuring that all procedures are adequately covered and that the materials fullyconfirm to the Contract requirements. These responsibilities will include allnecessary charges or dues related to insurance, freight, taxes (including customs andexcise 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, thecontractor shall provide all suitable facilities and accommodation for the staff andworkmen and he shall make provision for all costs related to such provisions and formedical, re-location, taxes or other expenses.

h. To provide all equipment, machinery, tools etc. and related spares, maintenance andconsumables necessary for implementation of the Works.

i. To provide all site offices, stores, workshops and facilities necessary for use by theEmployer, 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 shallinclude: excavation, provision, haulage and installation of suitable bedding andbackfill material and disposal of surplus excavated material; distribution, laying adjoining of pipes; installation of all special pipework, valves etc. and construction ofall related concrete or other activities together with all testing and disinfection ofcompleted Works. The Contractor's attention is drawn to the restricted working space between Rajbanshi 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 Brief on procurement packages

The procurement procedures for construction material have already been started. Agreements have been made with the renowned factories for the procurement of Brick, Cement, Steel, uPVC, HDPE pipe, machinery and equipment, electrical components, manhole covers, rubber rings etc.

6 Details of the project execution

6.1 Physical Progress (Achievement till the month)

a) Storm Water Drain Sub-Project (Work Progress till the date)

Drain	Lines	Length	Total Length (m)	Drain Construction (m)				Remarks
				Till Previous Month	Till This Month	This Month Work	Plan for Next Month	
B1	B1L1	1198.98	3950	1,198.98	1,198.98	-		
	B1L2	1148.98		532.00	532.00	-	250.00	
	B1L2A	465.77		150.00	230.00	80.00	100.00	
	B1L2B	137.09			120.00	120.00	57.09	
	B1L2C	137.09				-		
	B1L2D	490.97			230.00	230.00	100.00	
	B1L2F	371.22		370.00	370.00	-		
						-		
B2	B2L1	1425	3742	833.00	953.00	120.00	150.00	
	B2L2	828.03		300.00	300.00	-	150.00	
	B2L2C	639.22		631.00	631.00	-		
	B2L1B	849.47		750.00	750.00	-	80.00	
						-		
B3	B3L1A	422.96	3514	420.96	420.96	-		
	B3L1B	421.1		421.10	421.10	-		
	B3L1	669.7		145.00	331.00	186.00	200.00	
	B3L2	691.56		552.00	624.00	72.00	100.00	
	B3L2E	220.42		200.00	200.00	-		
	B3L3	578.74		483.00	483.00	-	70.00	
	B3L4	509.5		509.50	509.50	-		
						-		
S9	S9L1	2981.85	3178	650.00	650.00	-	100.00	
						-		
S11	S11L1	794	2092	794.00	794.00	-		
	S11L1A	265.75		83.00	83.00	-		
	S11L1B	107.5		107.50	107.50	-		
	S11L2	924.3		273.00	313.00	40.00	100.00	
						-		
S13	S13L2	1001	4555	605.00	605.00	-	200.00	
	S131A	718.33		700.00	700.00	-		
	S13L1B	276		276.00	276.00	-		
	S13L1C	284		284.00	284.00	-		
	S13L1D	535.04		350.00	530.00	180.00	200.00	
	S13L1E	572.02		100.00	100.00	-		
	S13L1F	524		295.00	524.00	229.00	200.00	
	Hume Pip	645		137.50	327.50	190.00	200.00	
						-		
CN2	CN2L2	949.23	2273	705.00	875.00	170.00	350.00	
	CN2L1	994.5			200.00	200.00	250.00	
	CN2L1A	134.02				-		
	CN2L1B	195.27				-		
						-		
CN3	CN3L1	715.91	2170	550.00	550.00	-	100.00	
	CN3L2	997.5		325.00	325.00	-	200.00	
						-		
Rani	L5	819	8483	750.00	750.00	-	750.00	
	L1	204				-		
	L2	2032				-		
	L3	2347			500.00	500.00	500.00	
	L4	2111			100.00	100.00	150.00	
	L4c				50.00	50.00	100.00	
	L6	970				-		
Drain	R2	4700	4700	3,250.00	3,250.00	-	200.00	
Total Length					**20,198.54**	**2,467.00**		

b) Sewerage Sub-Project (Work Progress till the date)

Sewer Line	Lines	Length	Total Length (m)	Sewer Construction (m)								Remarks
				Till Previous Month	Till This Month	This Month Work	Plan for Next Month	Total Manholes	Sewer Inlet	House Connections	uPVC Pipe	
T2 Trunk 1000 dia hume pi			1729	372.50	472.50	100.00	495.00	2				
T2 Trunk 900 dia hume pipe			489	10.00	315.00	305.00	350.00	4				
T3 Trunk 700 dia hume Pip			1472	85.00	535.00	450.00	800.00	7				
Line 19 400 dia Hume Pipe			487	75.00	300.00	225.00	100.00					
Total length of Hume Pipe				542.50	1,622.50	1,080.00						
T2 Sec												
	19f		17167	125.00	125.00	-		3				
	19h			176.00	176.00	-		4				
	19q			229.00	229.00	-		6				
	19s			262.00	262.00	-		7				
	19r			257.00	257.00	-		6				
	19t			175.00	175.00	-		4		18.00	145.00	
	24A				263.00	263.00		7	6.00	3.00		
	23				236.00	236.00		6				
	22				268.00	268.00		7	4.00			
						-		-				
T3 Sec			22664			-		-				
	Line 31			157.00	157.00	-		4				
	Line 32			200.00	200.00	-		5				
	Line 33			208.00	208.00	-		5				
	Line 34			208.00	208.00	-		5	8.00	6.00		
	Line 35			217.00	217.00	-		5	10.00	7.00		
	Line 26F			149.00	149.00	-		4				
	Line 26C			190.00	190.00	-		5				
	Line 26E			130.00	370.00	240.00		9				
	Line 26			68.00	132.00	64.00		3				
	Line 26G				68.00	68.00		2				
	Line 26H				58.00	58.00		1				
	T326A1				63.00	63.00		2				
	T3L26D				58.00	58.00		1				
	Line 26B				196.00	196.00		5				
	Line 27				461.00	461.00		12				
						-						
Total Length of HDPE Pipe				**2,751**	**4,726**	**1,975**		**118**	**28**	**34**	**145**	

c) Wastewater Treatment Plant Sub-Project (Work Progress till the date)

S.N.	Description of Work	This month	Total Length/Nos	Program for Next Month	Remarks
1	Excavation of Ponds-Anaerobic	0	3 nos		
2	Excavation of Ponds-Facultative	0	2 nos		
3	River Training Works	35	515m		
4	Boundary wall construction	0	580 m		
5	Office cum lab building, WWTP, Jatuwa	Priming of Doors, windows and grill			
5	Workshop Building & Generator/Changing Building, WWTP, Jatuwa	Priming of Doors, windows and grill			
6	Sump Well	Excavation of Sump Well up to 5 m depth, Laying of flushing pipe 700 dia		Complete of Excavation and laying of reinforcement	

d) Production of Precast Items from Slab Casting Yard, Katahari

S.N.	Description	Unit	Quantity			Remarks
			Till Previous Month	Till This Month	This Month Work	
1	Slabs	Nos	19803	22003	2200	
2	Precuts	Nos.	3523	3673	150	
3	Kerb Stone	Nos.	5812	5812	0	

e) Production of Precast Chambers at Yard Katahari

S.N.	Description	Unit	Quantity			Remarks
			Till Previous Month	Till This Month	This Month Work	
1	Manhole	Set	24	205	181	
2	Sewer Inlet	Set	53	240	187	
3	House Connection	Set	91	303	212	

f) Hume Pipe Production from Hume Pipe Production Factory, Itahari

Daily Hume Pipe Production for the Month March 2015

S.N.	1	2	3	4	5	6	7	8	9	10	11
Diameter	200mm Ø	300mm Ø	350mm Ø	400mm Ø	450mm Ø	500mm Ø	600mm Ø	700mm Ø	900mm Ø	1000mm Ø	1600mm Ø
No of Moulds	38	3	2	2	2	3	8	8	2	4	2
Previous Month Production	1562	140	110	141	73	163	576	716	184	434	185
This Month Production	0	0	26	26	16	40	89	111	34	63	20
Total Production	1562	140	136	167	89	203	665	827	218	497	205

6.2 Financial Progress and Cash Flow

Detail of payment:

Installment Number	Net Payble Amount (NRs.)	Remarks
IPC 01	200,940,000.00	Advance Payment 01
IPC 02	27,853,500.98	IPC 2
IPC 03	47,507,270.95	IPC 3
IPC 04	42,241,392.52	IPC 04
IPC 05	22,035,291.99	IPC 05
IPC 06	85,573,541.38	IPC 06
IPC 07	76,203,672.17	IPC 07
IPC 08	115,297,549.23	IPC 08
Total=	**416,712,219.22**	

7 Details of Safeguard activities

Till the date no such issues have been faced relating to the Social, Environmental and Resettlement matter.

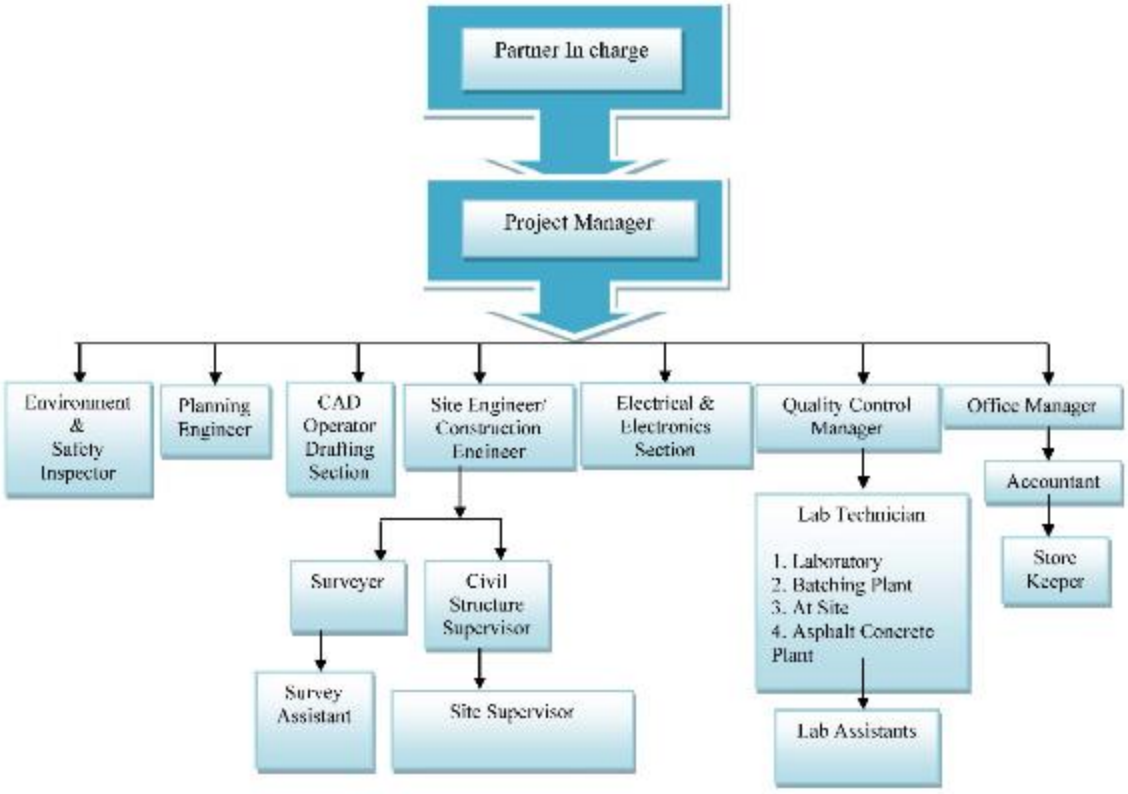
8 Key Issues and Remarks

Following issueswere raised and solved as per instruction of Engineer:

- Sewer line construction at secondary lines is undertaking on few right of way cleared sites only. Still most of the parts of secondary lines are to be cleared till right of way.

- Heavy rainfall at the mid of the month has obstructed the construction of Hume pipe laying, manhole construction and drain construction.

9 Work Plan Professional input



S.N.	Name	Designation	Attendance Days
1	Ujjwal Prasai	Project Manager	25
2	Santosh Pudasaini	Planning/ Construction Engineer	25
3	Mahesh Subedi	Construction Engineer	25
4	Umesh Kumar Dangol	Site Engineer	25
5	Uddhav Bhatta	Site Engineer	25
6	Dataram Gelal	Site Engineer	25
7	Sujeet Dahal	Office/ Bill Engineer	25
8	Niraj Raut	Site Engineer	14
9	Sunil Chaudhary	Quality Control Manager	25
10	Vishwo Bandhu Mainali	Accountant/ Office Manager	25
11	Narayan Rijal	Senior Site Supervisor/Safety Manager	20
12	Dipesh Chaudhary	Junior Engineer	25
13	Dipesh Kumar Chaudhary	Junior Engineer	10

14	Suresh Chaudhary	Junior Engineer	10
15	Suman Tamang	Junior Engineer	25
16	Sujan Singh Thakuri	Junior Engineer	15
17	Bipin Rai	Junior Engineer	14
18	Sabita Thapa	Sub-Overseer	25
19	Angira Rai	Sub-Overseer	25
20	Rojina LG	Sub-Overseer	14
21	Gaurab Subba	Sub-Overseer	25
22	Prakash Bhattrai	Sub-Overseer	25
23	Saroj Shrestha	Junior Engineer	25
24	Suman Shrestha	Junior Engineer	25
25	Bishal Shrestha	Junior Engineer	25
26	Sanjay Shrestha	Junior Engineer	25
27	Santosh Mukhiya	Site Supervisor	25
28	Pradip Rai	Sub-Overseer	25
29	Dipesh Dahal	Lab Assistant	25
30	Ramesh Koirala	Lab Assistant	25
31	Mahakanta Risidev	Lab Assistant	25
32	Prasasan Rajbansi	Supervisor	25
33	Sandeep Pyakurel	Light Driver (7621)	24
34	Gurucharan Yadhav	Light Driver (1082)	14
35	Kiran Manandhar	Light Driver (1086)	25
36	Mangal Kisku	JCB Operator	25
37	Surya Bdr. Malla	Loader Operator	17
38	Rupana Chaudhary	TM Driver	25
39	Bhabesh Rai	Batching Operator	20
40	Chandan Roy	Pc-200 Operator	25
41	Jeet Bdr Gurung	Teller (4423) Driver	25
42	Ananda Rajbansi	Electrician	25
43	Kamal Yadhav	Electrician	25
44	Pappu Yadav	Mechanic	25
45	Mukesh Mandal	Mechanic	25
46	Bhanu Bhakta Kafle	Plumber	22

47	Ganga Ram Dhital	Plumber	25
48	Niroj K. Puri	TM Driver(7561)	20
49	Dhan Kaji Gurung	TM Helper	25
50	Indra RajBansi	Tractor Driver (6204)	25
51	Kartik Thrau	Tractor Driver (8304)	25
52	Tilak Ghalan	Transit mixer Driver	25
53	Nakkul Paddhar	Tanker Driver	25
54	Udit Narayan	Tanker Driver	25
55	Basudev Yadav	Tractor Driver	25
56	Sudeep Rajbansi	JCB Helper	25
57	Satya Dhimal	Light Driver	25
58	Dip Budathoki	Light Driver	25
59	Manita Shrestha	Kitchen Helper	18
60	Kalpana Tamang	Kitchen Helper	15
61	Sita Thapa	Kitchen Helper	25
62	Pabitri Rishidev	Kitchen Helper	25
63	Kabita Kadel	Kitchen Helper	25
64	Pabitra Rai	Kitchen Helper	14
65	Pabitra Tamang	Kitchen Helper	25

Laborers at site work

The detail of laborers is listed in table below.

Details of Labor

S.N.	Labour Type	Numbers		Remarks
Skilled Labor				
1.	Mason/carpenter	14		
2.	Plumber	6		
3.	Electrician	4		
4.	Bar Bender	14		
5.	Wielder	14		
6.	Scaffold	6		
7.	Drivers	18		
Unskilled Labor				
	Labor	**Male**	**Female**	
1.	Labors (Skilled)	60	8	
2.	Labors (Unskilled)	144	30	
Total		204	38	

10 Conclusion

Drain construction, HDPE/ Hume pipe laying and manhole construction is underway at several lines.

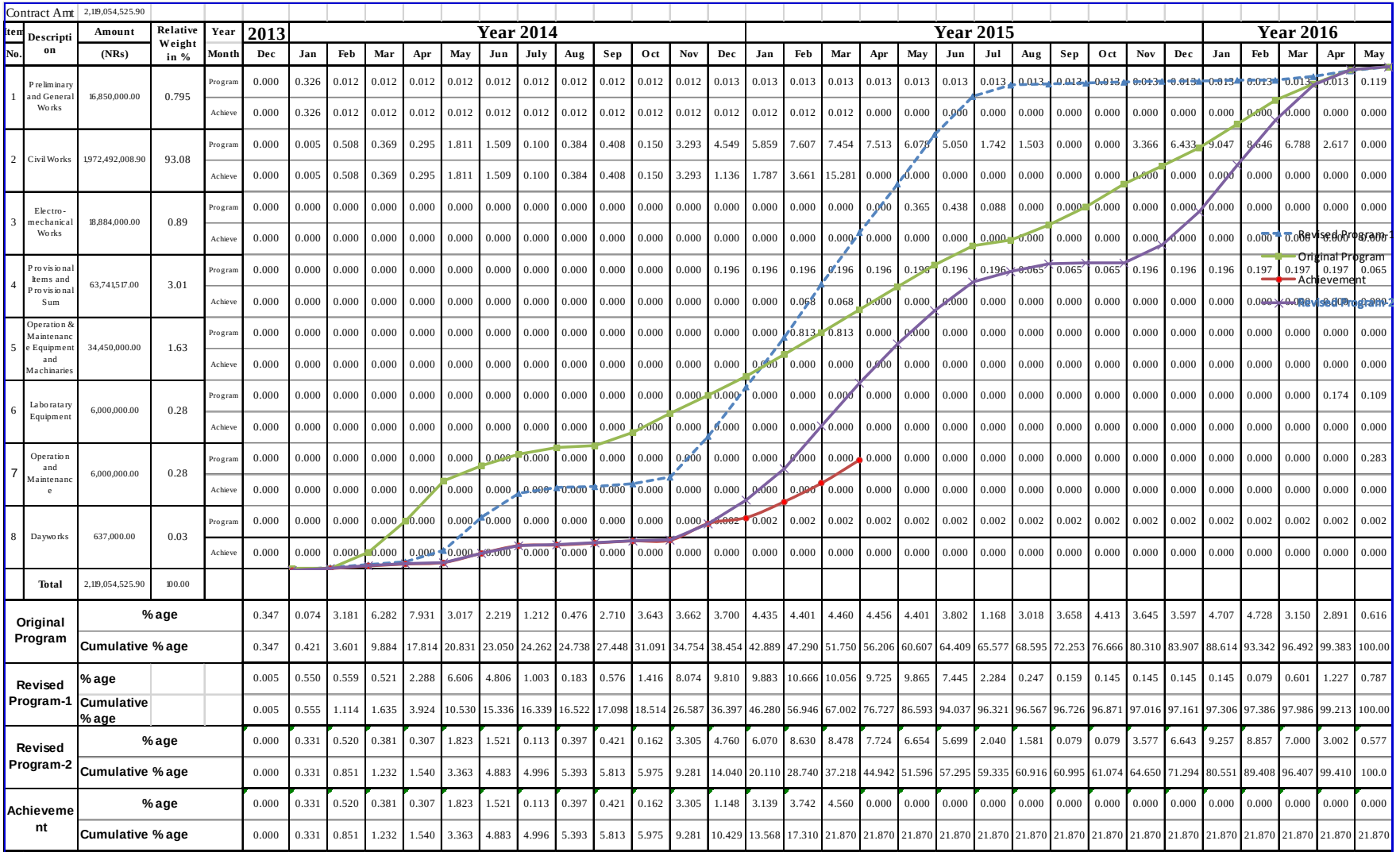
Similarly, precast chambers installation at right of way cleared sites is undertaking.

At the key working season, contractor's resources are mobilized to full extent. Multiple sites are underway at several places of Biratnagar but they are obstructed due to unavailability of Site Possession. If all sites are possessed, the project can be completed on time.

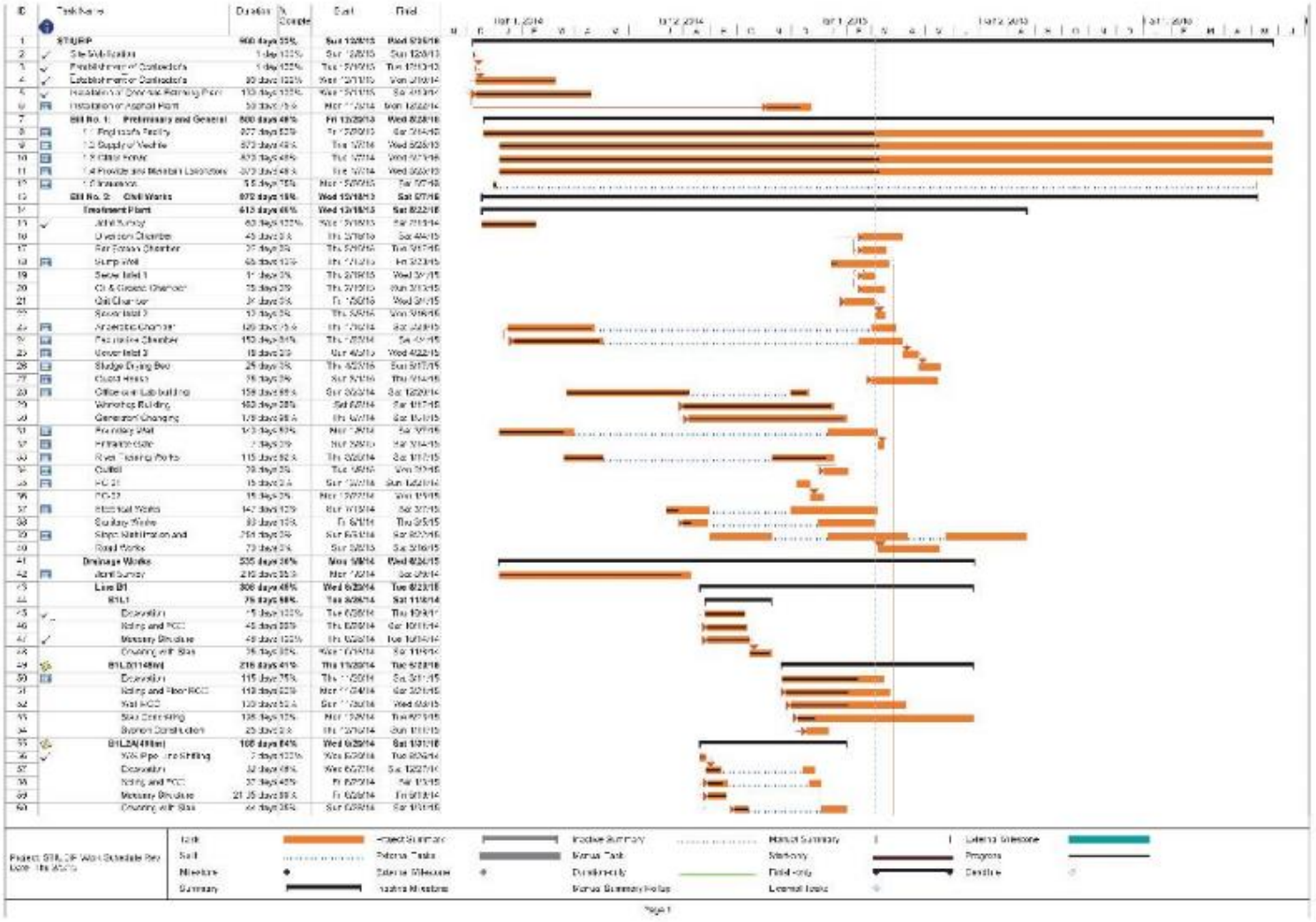
ANNEX

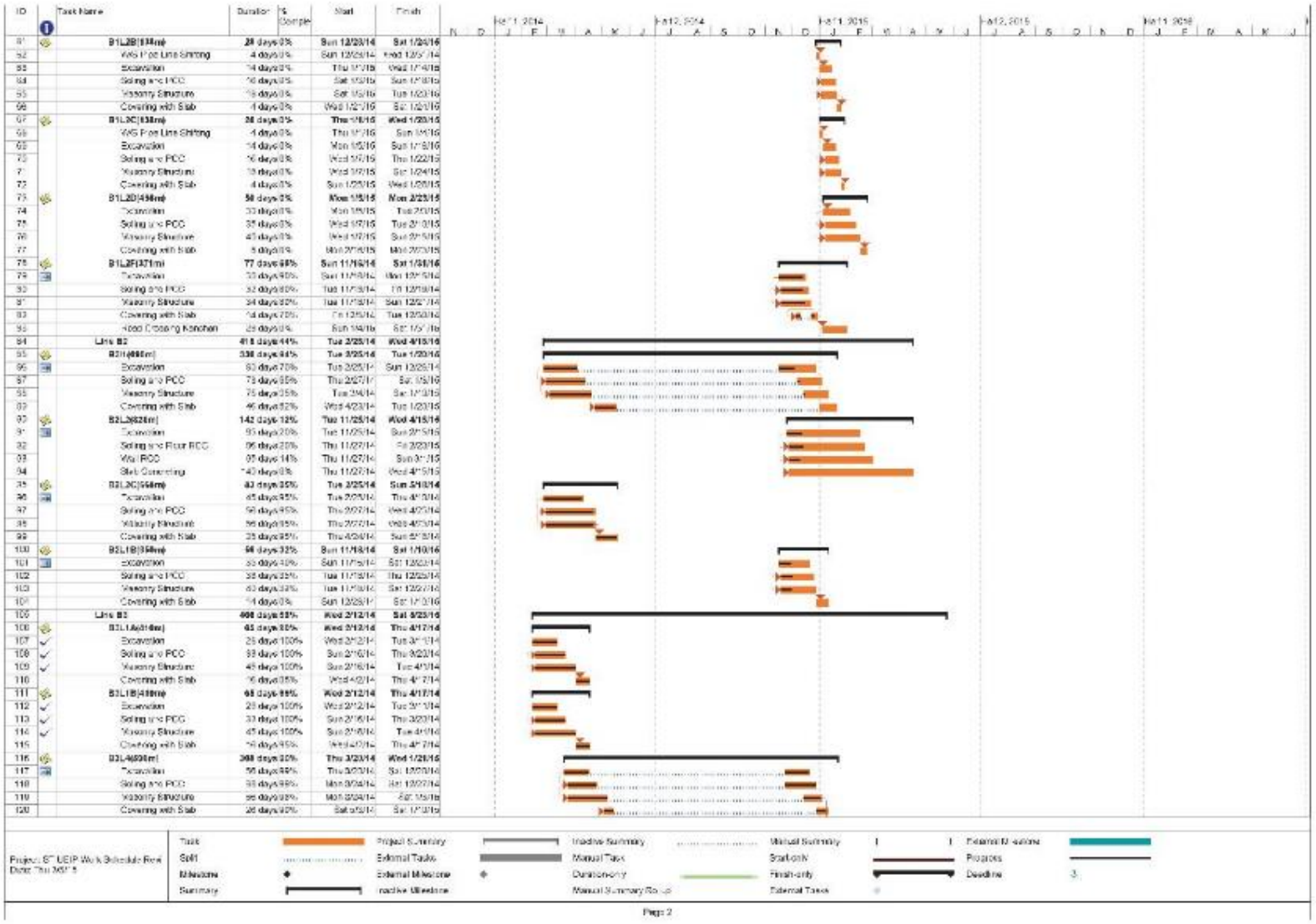
S – Curve

Contract Amt		2,19,054,525.90																																				
Item No.	Description	Amount (NRs)	Relative Weight in %	Year	2013	Year 2014													Year 2015												Year 2016								
				Month	Dec	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
1	Preliminary and General Works	16,850,000.00	0.795	Program	0.000	0.326	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.012	0.013	0.013	0.013	0.013	0.013	0.013	0.013	0.119
				Achieve	0.000	0.326	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	Civil Works	1,972,492,008.90	93.08	Program	0.000	0.005	0.508	0.369	0.295	1.811	1.509	0.100	0.384	0.408	0.150	3.293	4.549	5.859	7.607	7.454	7.513	6.078	5.050	1.742	1.503	0.000	0.000	3.366	6.433	9.047	8.646	6.788	2.617	0.000
				Achieve	0.000	0.005	0.508	0.369	0.295	1.811	1.509	0.100	0.384	0.408	0.150	3.293	1.136	1.787	3.661	15.281	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	Electro-mechanical Works	18,884,000.00	0.89	Program	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.365	0.438	0.088	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
				Achieve	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4	Provisional Items and Provisional Sum	63,741,517.00	3.01	Program	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.196	0.196	0.196	0.196	0.196	0.196	0.196	0.196	0.065	0.065	0.065	0.196	0.196	0.196	0.197	0.197	0.197	0.065
				Achieve	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.068	0.068	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5	Operation & Maintenance Equipment and Machinaries	34,450,000.00	1.63	Program	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.813	0.813	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
				Achieve	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6	Laboratary Equipment	6,000,000.00	0.28	Program	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.174	0.109
				Achieve	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7	Operation and Maintenance	6,000,000.00	0.28	Program	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.283
				Achieve	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8	Dayworks	637,000.00	0.03	Program	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
				Achieve	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Total	2,19,054,525.90	100.00																																			
Original Program	% age				0.347	0.074	3.181	6.282	7.931	3.017	2.219	1.212	0.476	2.710	3.643	3.662	3.700	4.435	4.401	4.460	4.456	4.401	3.802	1.168	3.018	3.658	4.413	3.645	3.597	4.707	4.728	3.150	2.891	0.616
	Cumulative % age				0.347	0.421	3.601	9.884	17.814	20.831	23.050	24.262	24.738	27.448	31.091	34.754	38.454	42.889	47.290	51.750	56.206	60.607	64.409	65.577	68.595	72.253	76.666	80.310	83.907	88.614	93.342	96.492	99.383	100.00
Revised Program-1	% age				0.005	0.550	0.559	0.521	2.288	6.606	4.806	1.003	0.183	0.576	1.416	8.074	9.810	9.883	10.666	10.056	9.725	9.865	7.445	2.284	0.247	0.159	0.145	0.145	0.145	0.145	0.079	0.601	1.227	0.787
	Cumulative % age				0.005	0.555	1.114	1.635	3.924	10.530	15.336	16.339	16.522	17.098	18.514	26.587	36.397	46.280	56.946	67.002	76.727	86.593	94.037	96.321	96.567	96.726	96.871	97.016	97.161	97.306	97.386	97.986	99.213	100.00
Revised Program-2	% age				0.000	0.331	0.520	0.381	0.307	1.823	1.521	0.113	0.397	0.421	0.162	3.305	4.760	6.070	8.630	8.478	7.724	6.654	5.699	2.040	1.581	0.079	0.079	3.577	6.643	9.257	8.857	7.000	3.002	0.577
	Cumulative % age				0.000	0.331	0.851	1.232	1.540	3.363	4.883	4.996	5.393	5.813	5.975	9.281	14.040	20.110	28.740	37.218	44.942	51.596	57.295	59.335	60.916	60.995	61.074	64.650	71.294	80.551	89.408	96.407	99.410	100.0
Achievement	% age				0.000	0.331	0.520	0.381	0.307	1.823	1.521	0.113	0.397	0.421	0.162	3.305	1.148	3.139	3.742	4.560	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Cumulative % age				0.000	0.331	0.851	1.232	1.540	3.363	4.883	4.996	5.393	5.813	5.975	9.281	10.429	13.568	17.310	21.870	21.870	21.870	21.870	21.870	21.870	21.870	21.870	21.870	21.870	21.870	21.870	21.870	21.870	21.870

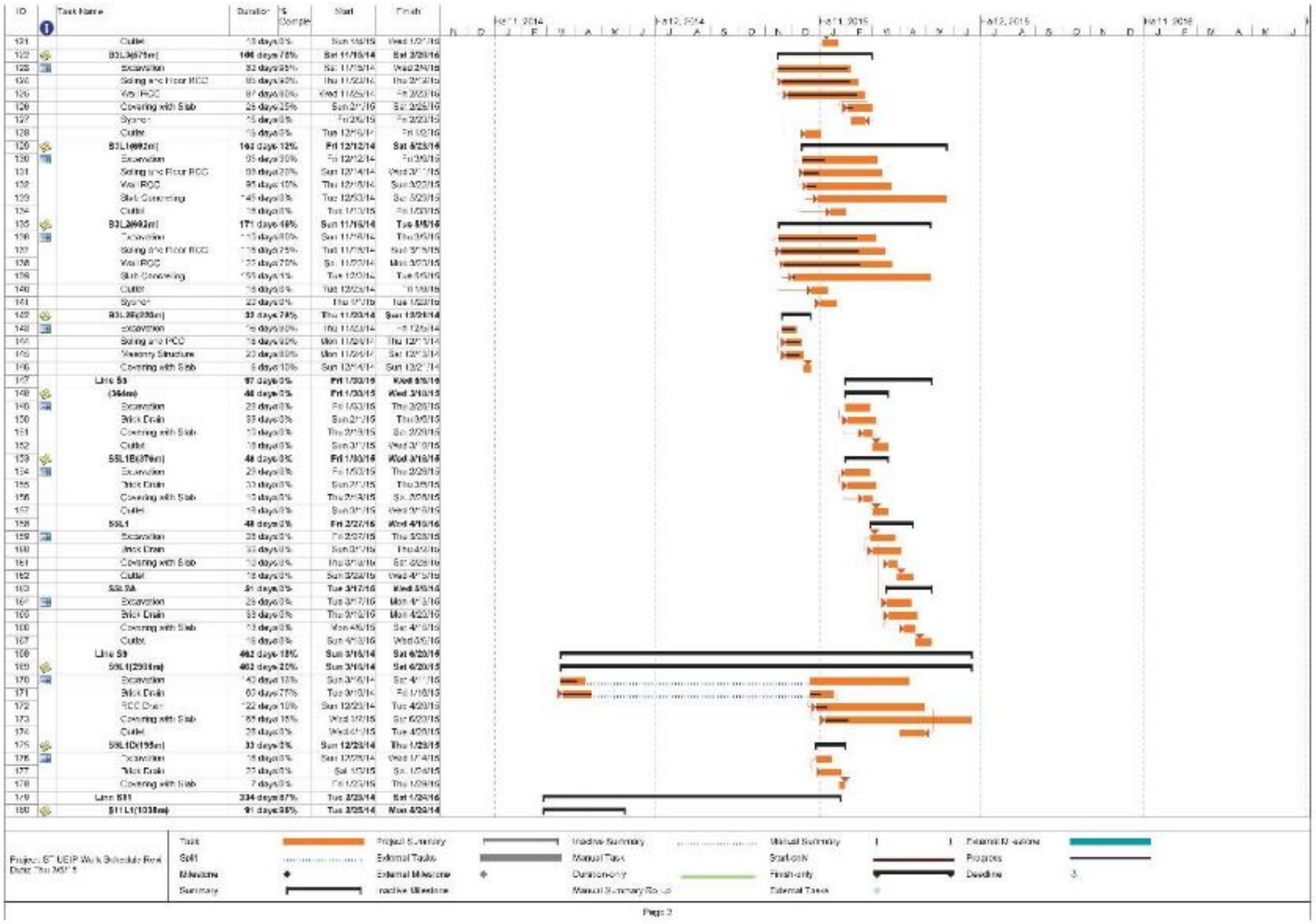


Work Schedule and Progress





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



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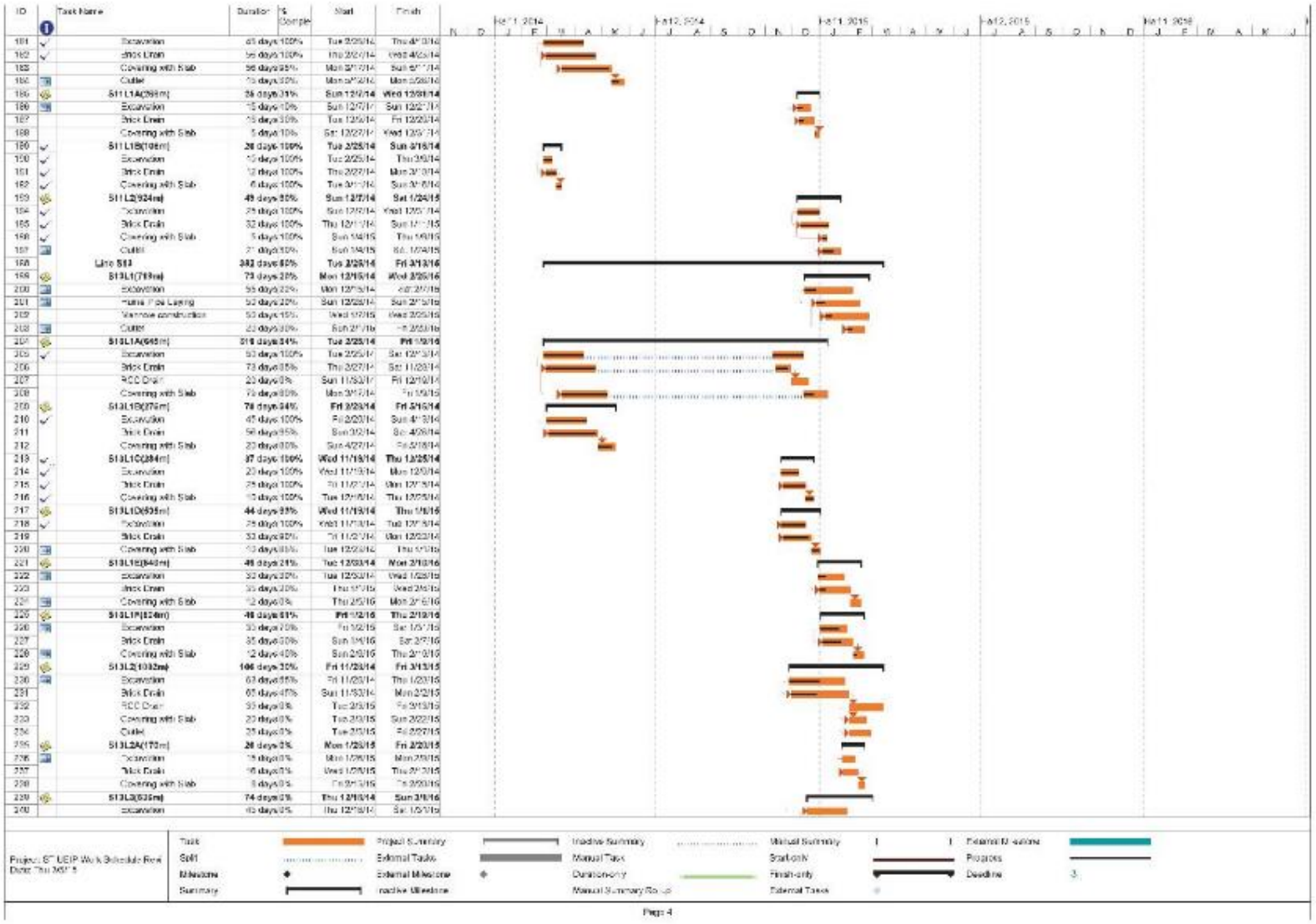

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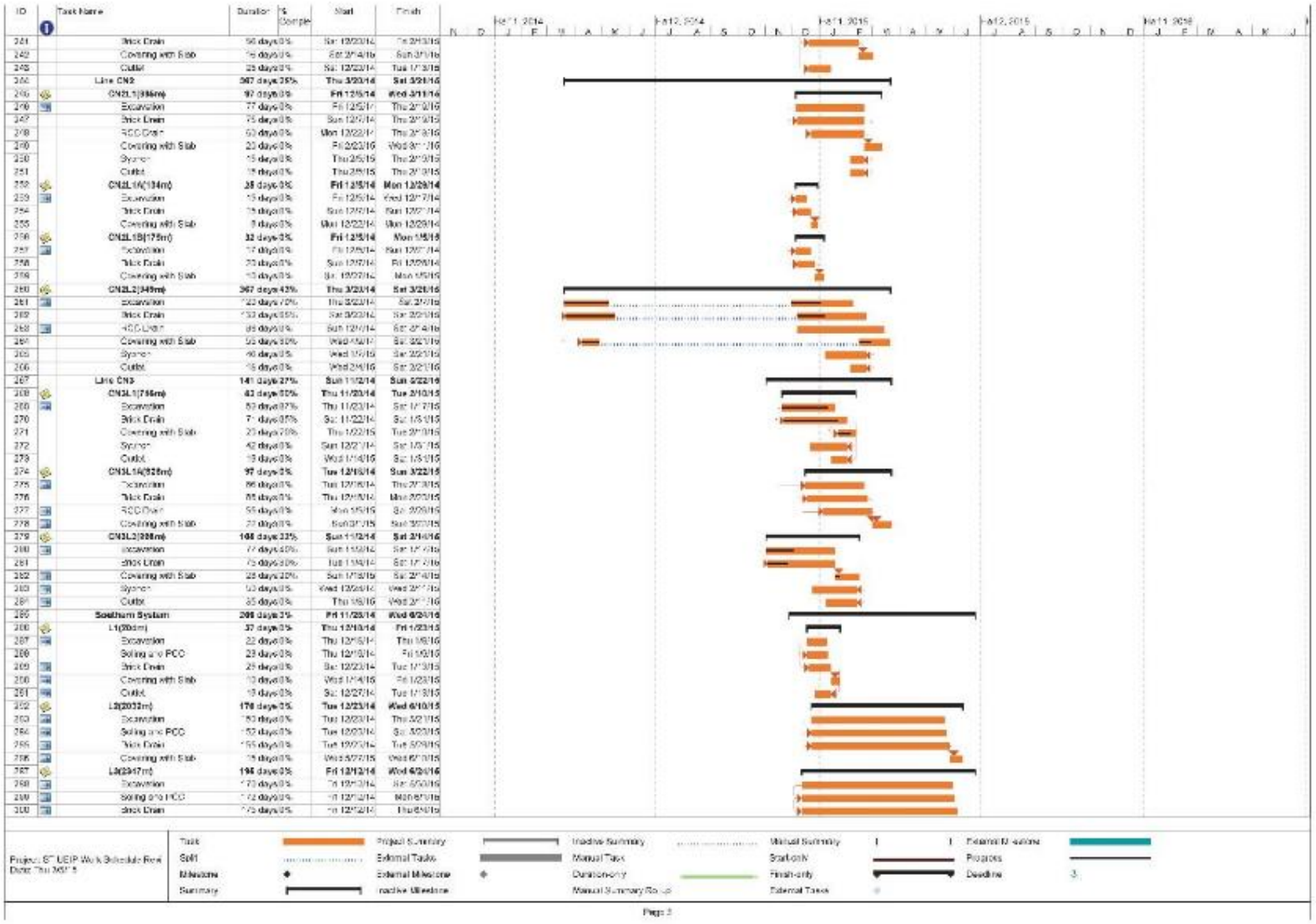
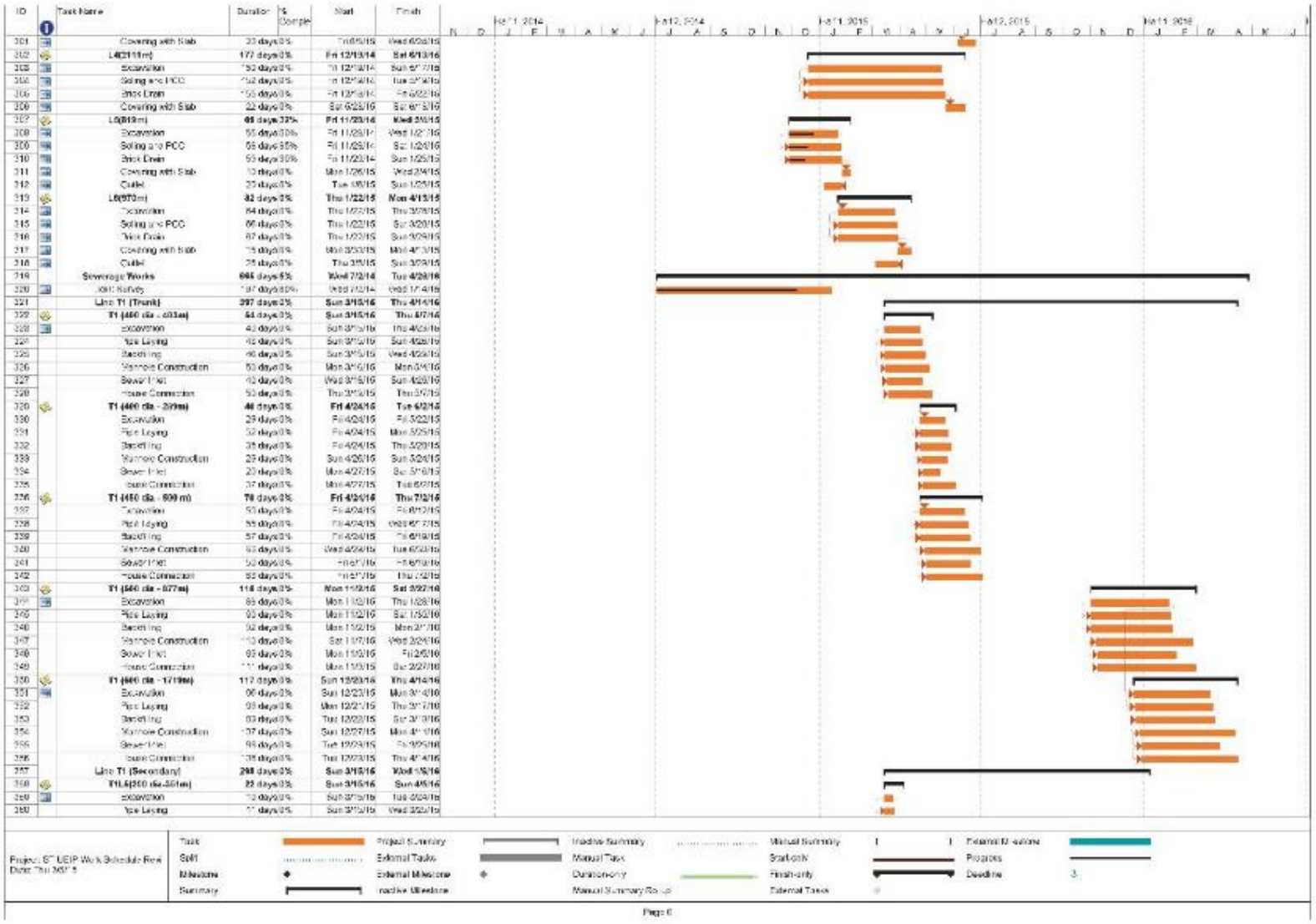
Site Office: Katahari, Judi





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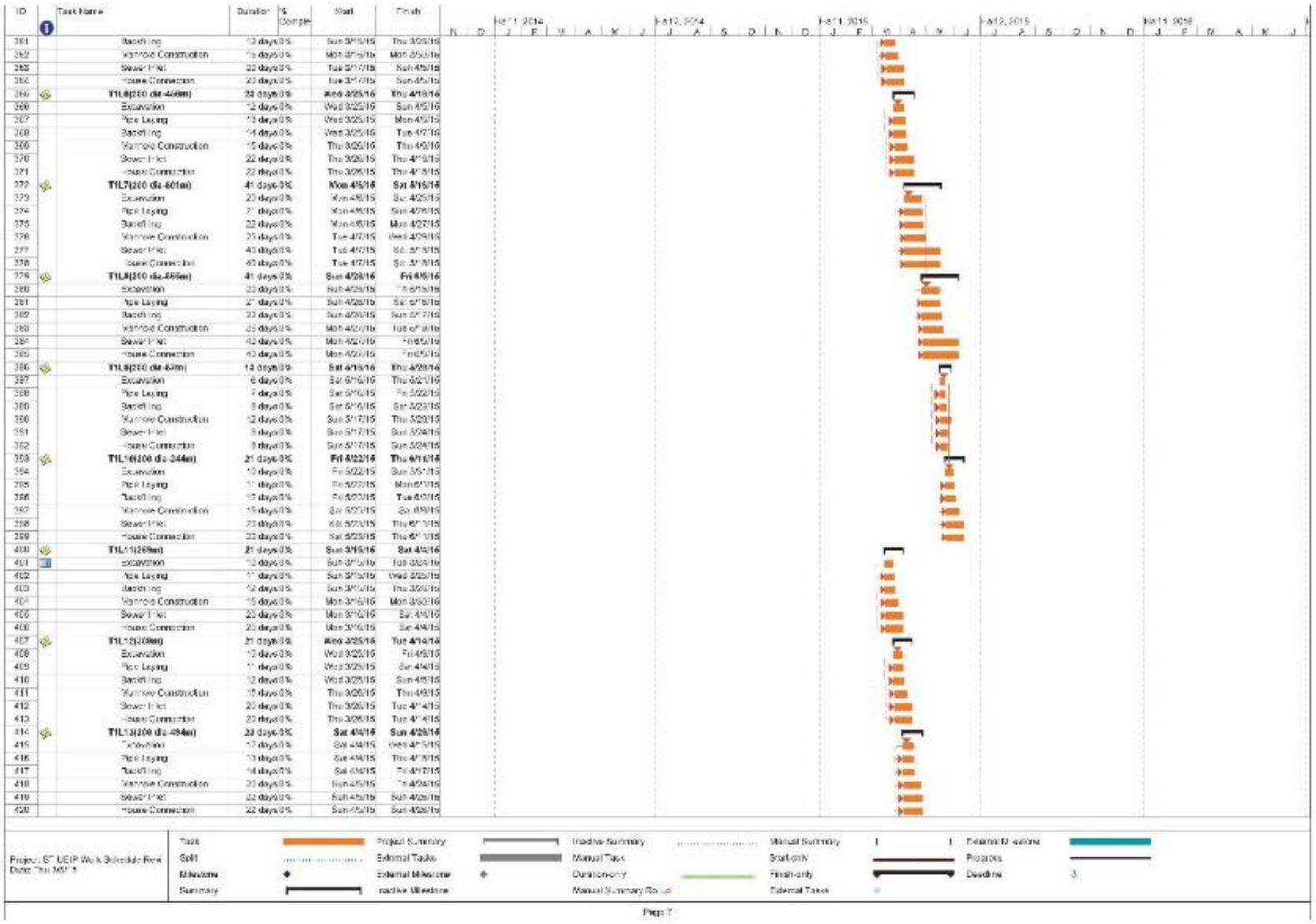

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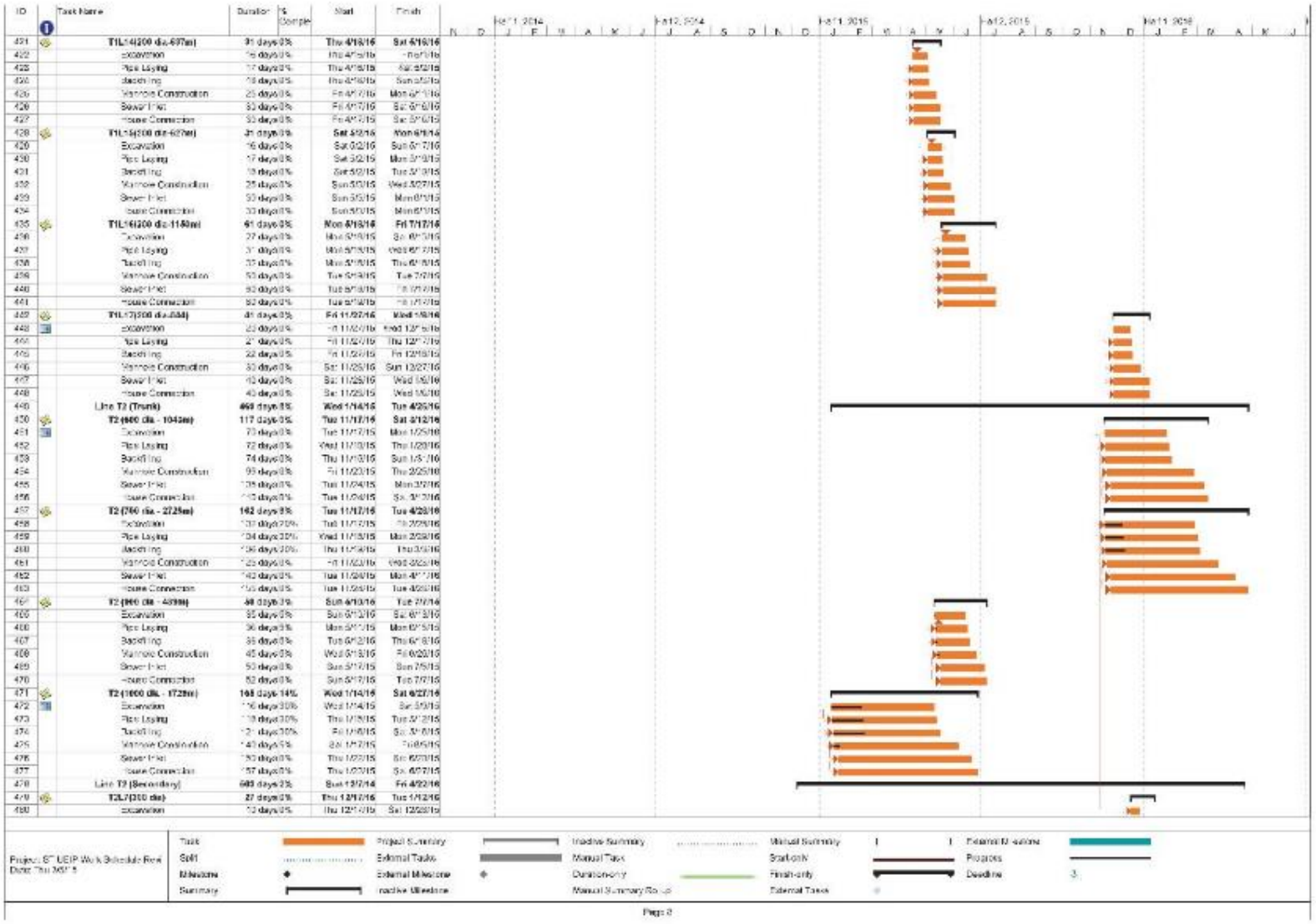

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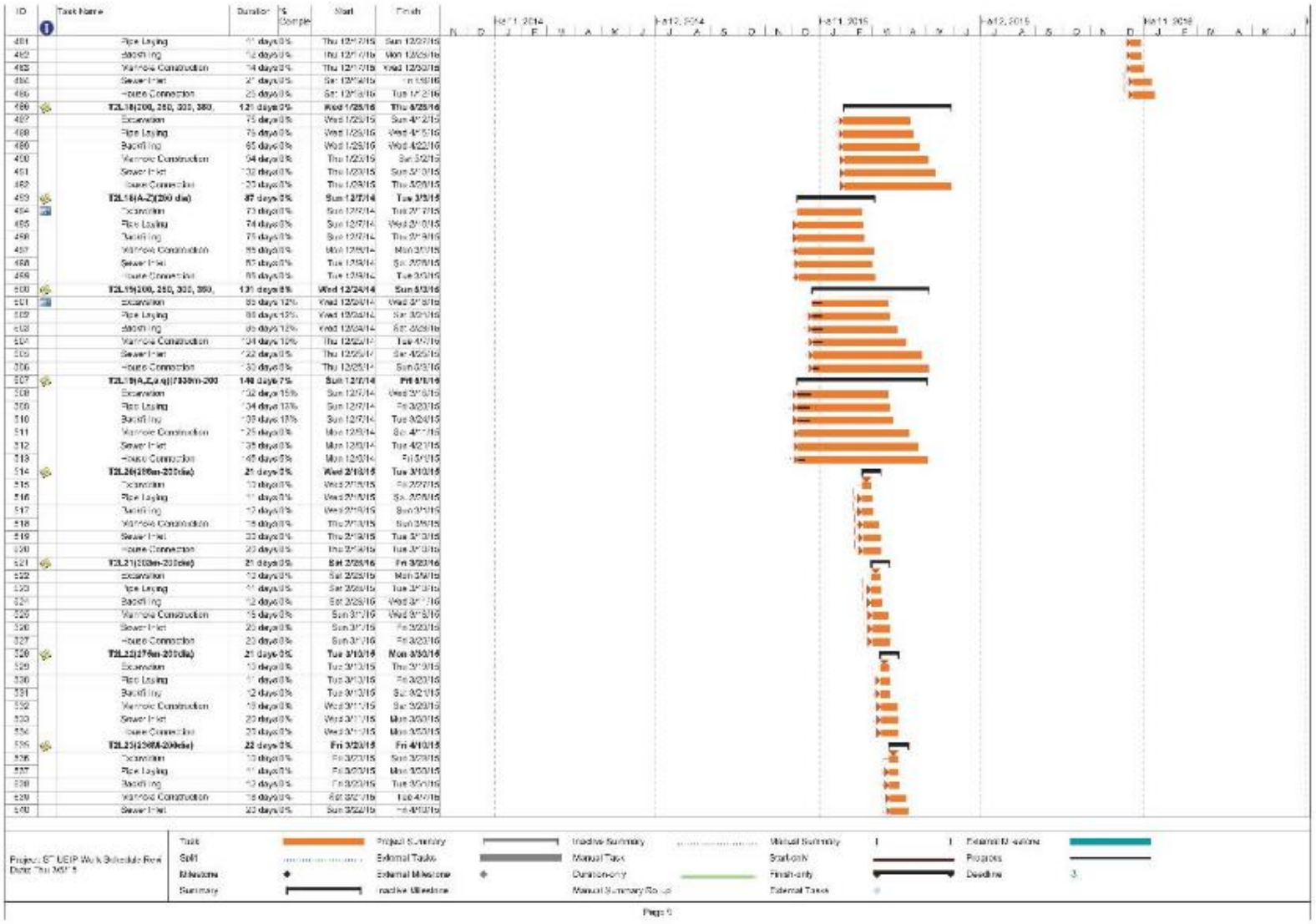

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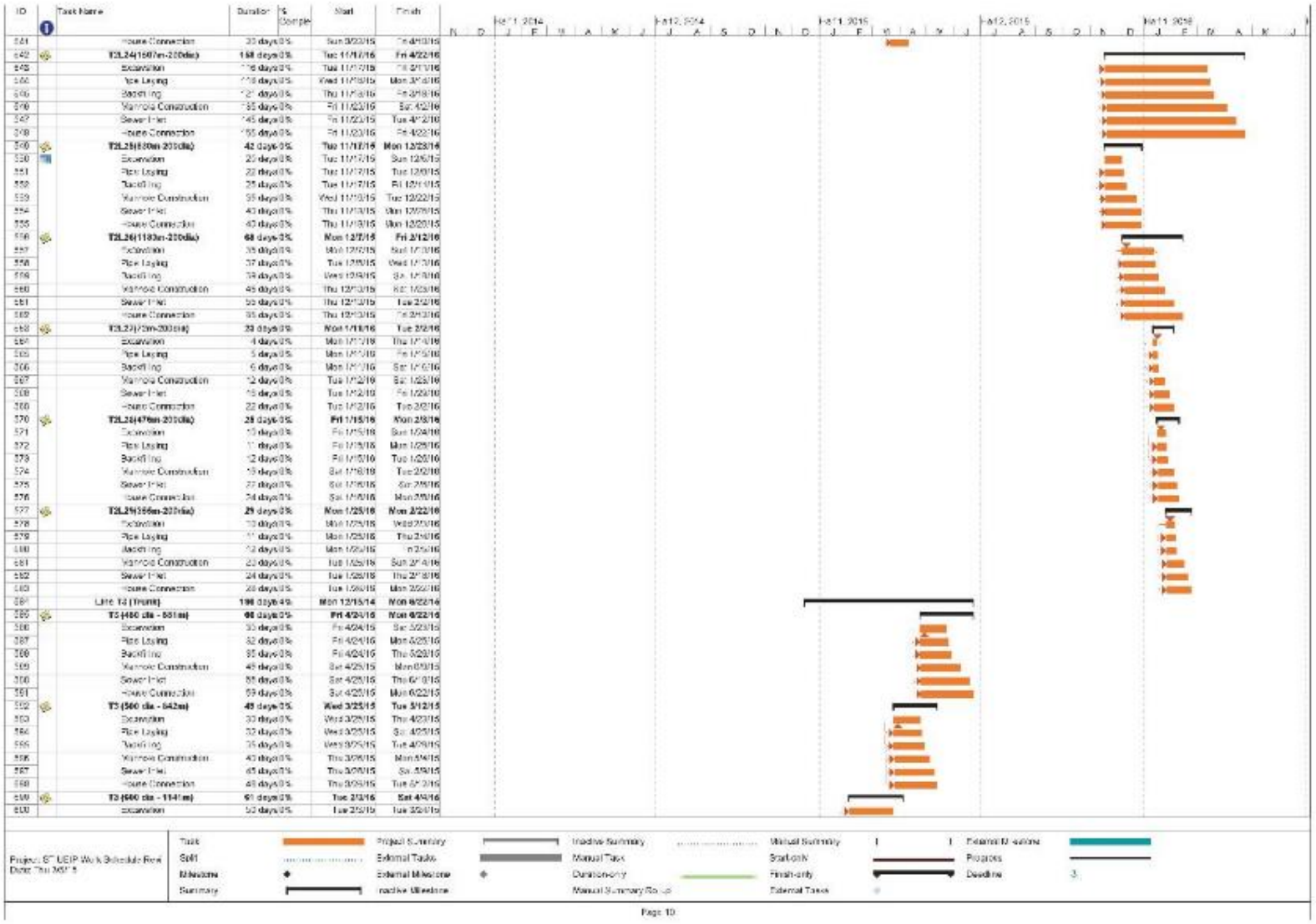

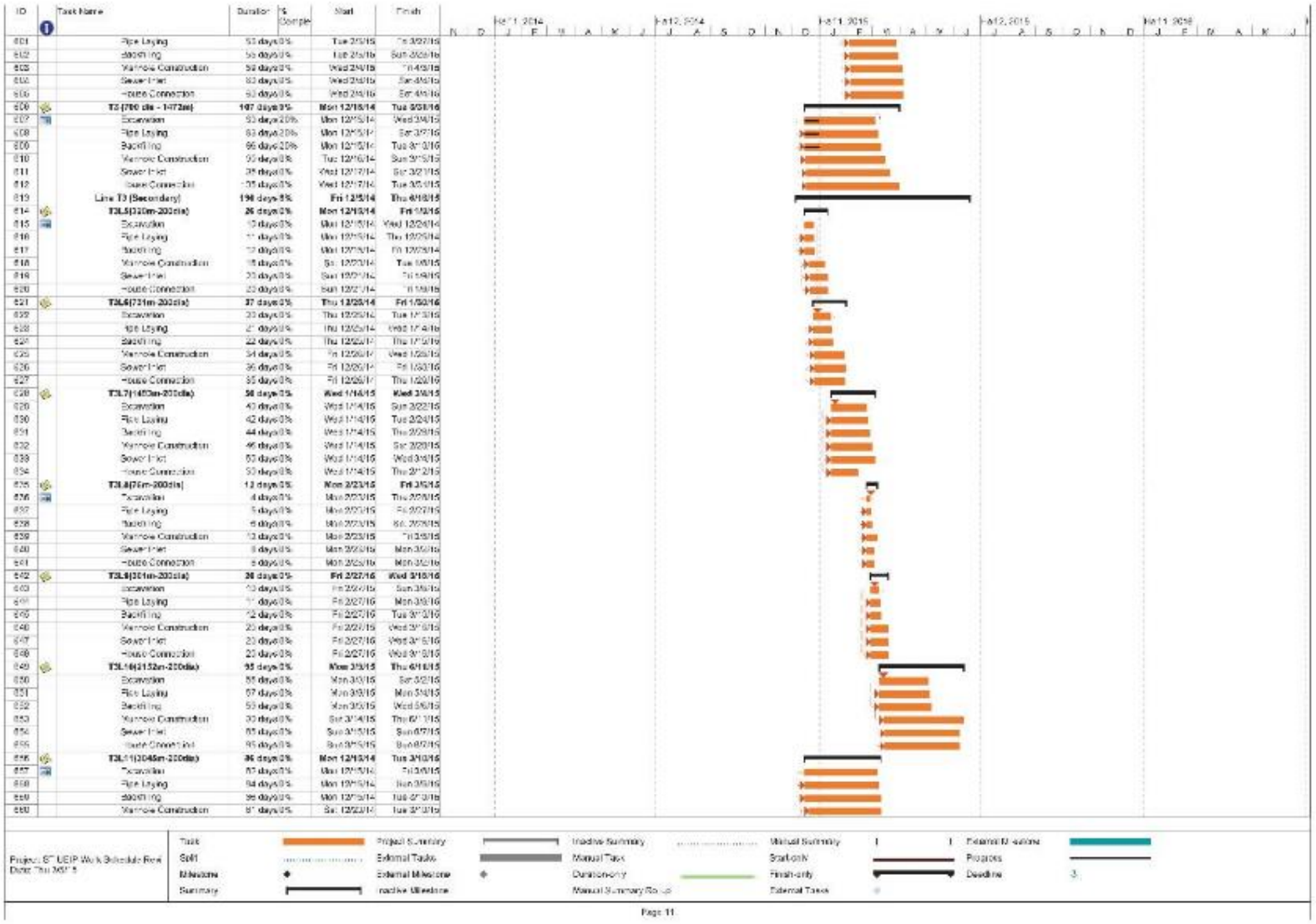

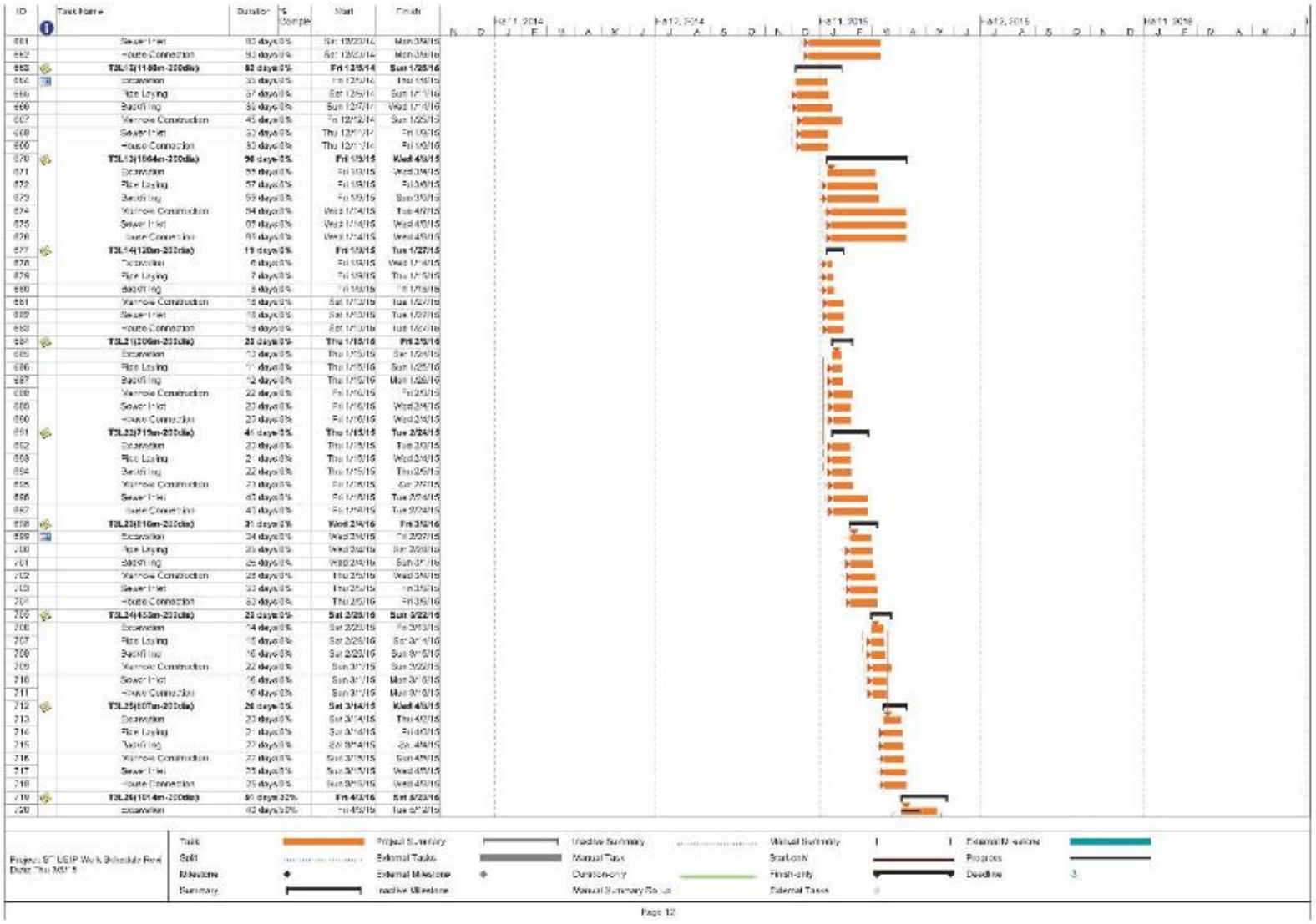

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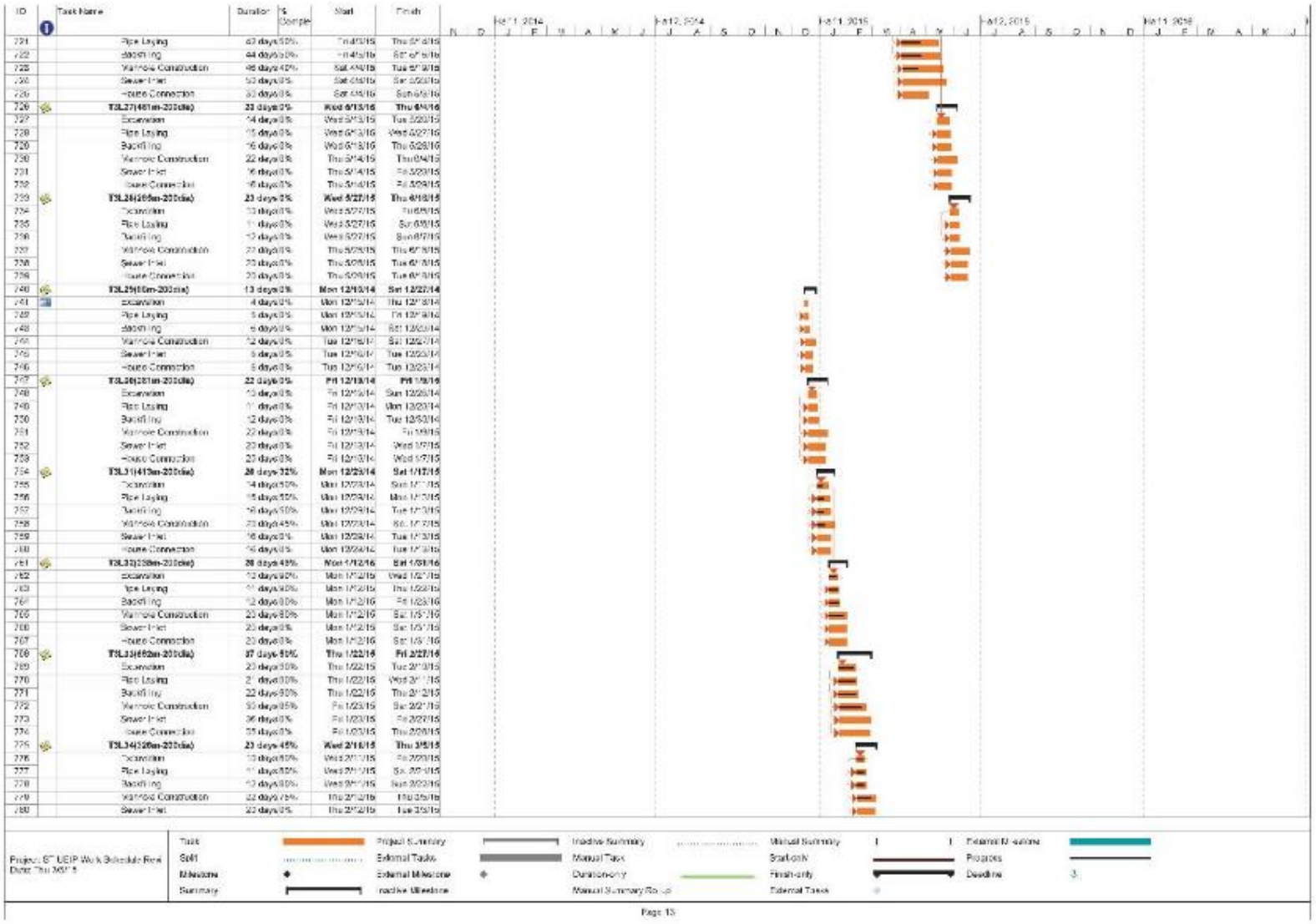

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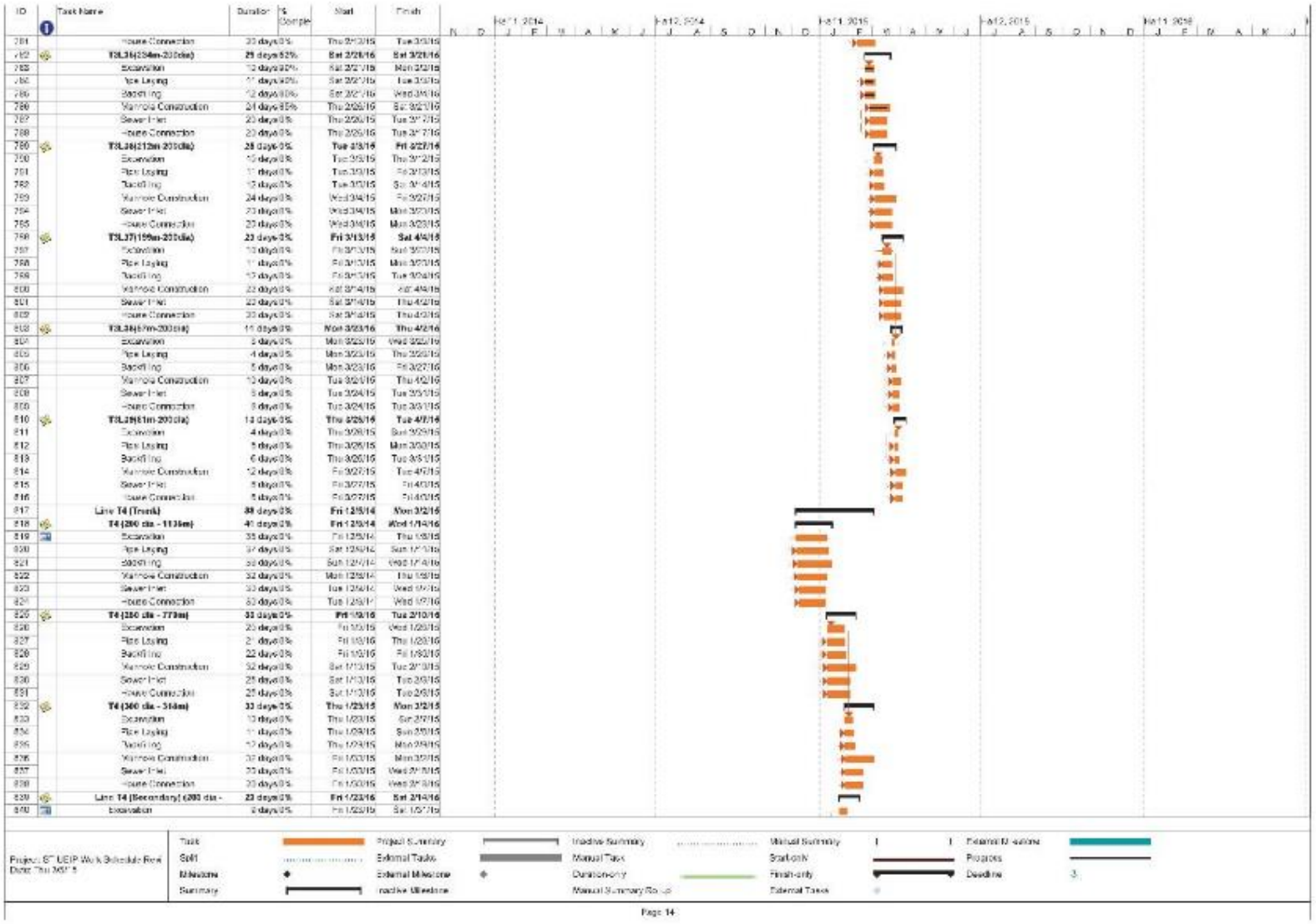

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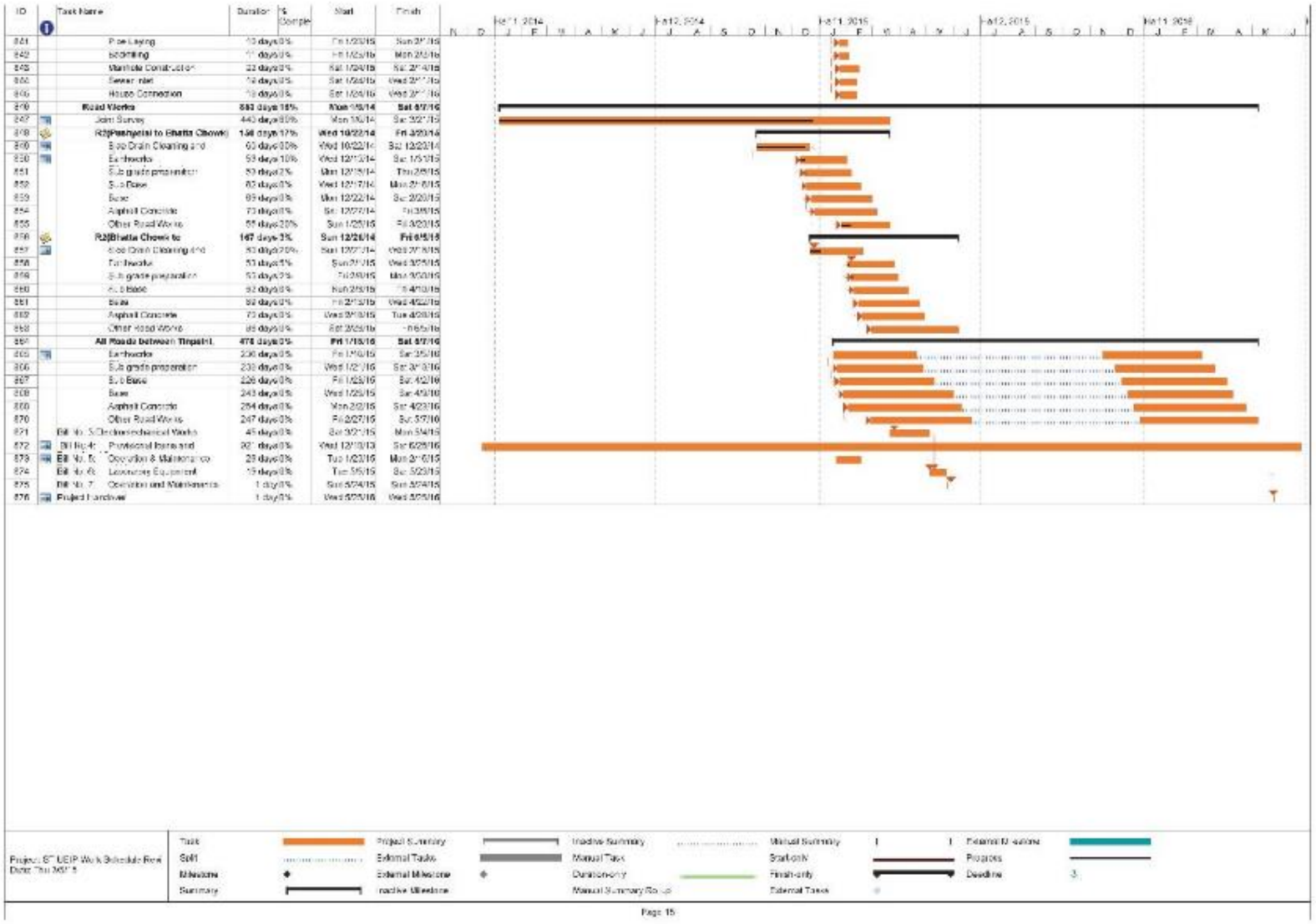

Photographs of the Month

Figure 1 Installation of Precast Sewer Inlet Chamber

Figure 2 Repair of damaged water supply pipe

Figure 3 Dewatering of manholes

Figure 4 House Connection Chamber and Sewer Inlet at Line T2L24A (Satghumti)

Figure 5 Excavation of Sump well

Figure 6 Manhole and Sewer Inlet at line T2L24A(Satghumti)

Figure 7 Diversion of existing canal

Figure 8 Heavy rainfall cause raise of water level at Dharamband Nala causing overflow to manhole pit

Figure 9 Manhole cleaning after rainfall

Figure 10 Manhole construction at line T2L19

Figure 11 Manhole bottom RCC at Line T2, Jatuwa

Figure 12 Stone masonry works at line T2, Jatuwa

Figure 13 Observing river training structure at WWTP, Jatuwa

Figure 14 Observing precast sewer inlet and manholes at line 33

Figure 15 Installation of precast manhole at line 23 (Satghumti)

Figure 16 400 dia Hume Pipe laying at secondary line T2L19

Figure 17 Installation of 700 dia Hume pipe at line T3, Yadhav Chowk

Figure 18 HDPE pipe laying at line T3L26

Figure 19 Outfall location of B3

20. Reinforcement laying for RCC slab at line B3

Figure 21 Construction of outfall structure at S11

Figure 22 Outfall structure at line S11

Figure 23 Storm drain revised layout at Rani

Figure 24 Outfall structure at S11

Figure 25 Outfall Structure construction at S11

Figure 26 RCC Slab construction for manhole at S13

Site-Specific EMAP Monitoring Checklist

Name of Contractor: M/S CTCE-KALIKA J.V. Contract No: STIUEIP/W/BRT/ICB-01 For the Month of March 2015
Consulting Engineers: SMEC-Brisbane-AQUA-BDA-CEMAT

(Insert sign √, or scale where applicable)

Project stage	Project Activity	Potential Environmental Impacts	Proposed mitigation measures	Mitigation Compliance	Mitigation Effectiveness	DSC Remarks				
Preparation for construction				**Indicate in 1-5 scale**	**Indicate in 1-5 scale**	**Compliance (C); Non Compliance (NC) Not applicable (NA)**				
						C			**NC**	**NA**
						<25%	25-50%	**>75%**		
	Identify the temporary areas required by the project and locate them with proper marking	May result social tensions	Prepare the details of temporary land acquisition and other private properties	2	2					
			Submit to Supervising Engineer	2	2					
			Follow RAP for temporary acquisition	2	2					
	Submit applications to get an approval Submit such agreement and permits to Supervising Engineers for official information	May result social conflict and legal obstructions resulting in delay of work	Obtain Letters of Approval and Agreement for (i) temporary acquisition of land and properties (ii) relocation of religious site, foot trails, (iii) disruption of water supply, and others	2	2					
	Delineate and peg the areas required	May result social conflict and legal obstructions resulting in delay of work Pegging of project area	Pegging of all constructions site and labor camp	2	2					
			Maintain records of trees and other properties likely to be affected	2	2					
	Construct workforce camp	Haphazard camps resulting in social stress and degradation of local environment	Establish workforce camp at designated site only	2	2					
	Make employment policy for local and affected people as per EMP	Local people may be deprived of opportunities, Minors may be employed	Employ local people (not under age 14) especially SPAF, and PAF in jobs	2	2					
			Settle wage rate based on DWEC and provide the list of employees to Supervising Engineer	2	2					

Project stage	Project Activity	Potential Environmental Impacts	Proposed mitigation measures	Mitigation Compliance	Mitigation Effectiveness	DSC Remarks				
				Indicate in 1-5 scale	Indicate in 1-5 scale	Compliance (C); Non Compliance (NC) Not applicable (NA)				
						C			NC	NA
						<25%	25-50%	>75%		
Construction Phase: Physical Environment	**Construction Activity**									
	Adopt cut and fill principle during earthworks Disposal of excess materials in designated area Apply Bio-engineering for controlling of erosion and Gully	Soil Erosion sedimentation and slope instability	Adopt 'cut and fill' approach, wherever possible	2	2					
			Avoid works during monsoon	2	2					
			Provide proper drainage facilities	3	3					
			Stockpile top soil for reuse	2	3					
			Adopt gully control and bioengineering	2	3					
			Procure aggregates from already existing sites	2	2					
			Dispose spoil in designated area	2	3					
	Quarrying from river bed	Change in River Hydrology and River Morphology	Avoid Quarrying/Mining activity in river/streams for extraction of materials required for project shall not be done so that change the river cross sections and longitudinal profile do not occur	2	2					
			Ensure care so that irrigation canal/channel are not adversely affected by the project construction	2	1					
			Ensure care of stone spout in order not to disturb the existing flow.	2	1					

Project stage	Project Activity	Potential Environmental Impacts	Proposed mitigation measures	Mitigation Compliance	Mitigation Effectiveness	DSC Remarks				
				Indicate in 1-5 scale	Indicate in 1-5 scale	Compliance (C); Non Compliance (NC) Not applicable (NA)				
						C			NC	NA
						<25%	25-50%	>75%		
	Disturbance of drainage Dumping of waste in the river Construct of toilets in the camps Storing of materials in the project area Handling of toxic materials Dumping of excess materials Quarry operation	Water Pollution	Avoid camping facility within drainage	1	1					
			Prohibition on dumping of wastes in the water source	2	2					
			Provision of sanitary facility and prohibition on defecation in open areas	2	2					
			Proper storage of construction aggregates, hazardous, and toxic materials and proper disposal of chemical containers, packaging materials, plastic bags provide training to workforce on safe handling of toxic materials	2	2					
			Disposal of waste in the designated area	2	2					
			provide dumping site and waste treatment facility	2	3					
			Avoid excessive mining from riverbed.	2	2					
	Movement of vehicles Operation of crusher Earthworks Stockpiling of construction waste and construction materials	Air Quality deterioration	Spraying of water in dry season at construction site and disposal site (Three time a day)	2	2					

Project stage	Project Activity	Potential Environmental Impacts	Proposed mitigation measures	Mitigation Compliance	Mitigation Effectiveness	DSC Remarks				
				Indicate in 1-5 scale	Indicate in 1-5 scale	Compliance (C); Non Compliance (NC) Not applicable (NA)				
						C			NC	NA
						<25%	25-50%	>75%		
			Limit speed of construction vehicle	2	2					
			Safe place	2	2					
			Regularly maintain equipment and cover the stockpile	2	3					
			Compliance of vehicles with National Vehicle Mass Emission Standards, 2756 BS	2	2					
			Arrange proper ventilation in confined working areas	3	2					
	Movement of vehicles Operation of crusher Operation of construction machineries and equipment Horn honking	Noise and vibration	Fit mufflers to control noise							
			speed limit of construction vehicle	2	2					
			Use light horn in vehicles	2	2					
			Maintenance of equipment	2	2					
			Prohibit the operation of crushing plant between 7 PM to 6 AM	3	2					
			Compensate the damages caused by vibration	3	3					

Project stage	Project Activity	Potential Environmental Impacts	Proposed mitigation measures	Mitigation Compliance	Mitigation Effectiveness	DSC Remarks				
				Indicate in 1-5 scale	Indicate in 1-5 scale	Compliance (C); Non Compliance (NC) Not applicable (NA)				
						C			NC	NA
						<25%	25-50%	>75%		
	Scrapping of top spoil	Effect on Soil quality	Stockpile reusable top soil properly in safe yard	1	2					
	Storage of fuel, lubricating oil, chemicals etc.	Solid waste problems, health risk	Store all materials, toxic, non-toxic and hazardous materials in safe place (warehouse)	1	1					
	Project activities producing wastes such as used tyres, lubricating oil, exhausted battery etc		Collect, segregate and dispose waste at designated area	2	2					
Construction Phase: Biological Environment	**Construction Activity**									
	vegetation clearance for construction of project structures	Vegetation clearance	Cut only marked trees	2	1					
	Fuel wood and NTFPs collection by workforce	Loss of vegetation species	Prohibit fuel wood and timber collection	2	1					
			Prohibit illegal NTFPs collection and Trade	3	2					
	vegetation clearance for construction of project structures and compensation to them		Provide LPG/kerosene to workforce	3	2					
			Stockpile the felled trees and take permission from concerned authority for its use	2	3					
			Plant trees @ 5 times of each felled trees	2	3					
			Compensate for affected trees from private and community forests	3	3					

Project stage	Project Activity	Potential Environmental Impacts	Proposed mitigation measures	Mitigation Compliance	Mitigation Effectiveness	DSC Remarks				
				Indicate in 1-5 scale	Indicate in 1-5 scale	Compliance (C); Non Compliance (NC) Not applicable (NA)				
						C			NC	NA
						<25%	25-50%	>75%		
Construction Phase: Socio-Economic Environment	compensation and Rehabilitation as per RAP	Land Intake and compensation to affected people	Avoid involuntary displacement	3	3					
			Compensation, Rehabilitation and employment opportunity to the affected people	2	3					
			Provide all possible assistance to the displaced people until the displaced people are settled	3	3					
			Provide disturbance and rehabilitation cost	3	4					
			Protect traditional rights of locals	1	1					
			Compensate for any loss of crops, trees and other natural resources	3	3					
			Establish technical committee to assess damage caused by vibration for compensation	3	3					
	Reinstatement of damaged community services and infrastructures	Reinstatement of community services and infrastructures	Compensate or reinstate community assets such as temples, bridges and irrigation canals, electricity poles, telephone lines, drinking water pipes, sewerage lines, roads, trails, cremation sites etc	3	3					

Project stage	Project Activity	Potential Environmental Impacts	Proposed mitigation measures	Mitigation Compliance	Mitigation Effectiveness	DSC Remarks				
				Indicate in 1-5 scale	Indicate in 1-5 scale	Compliance (C); Non Compliance (NC) Not applicable (NA)				
						C			NC	NA
						<25%	25-50%	>75%		
	Influx of outside workforce, money and disharmony activity	Increase in crime and community stress	Instruct Workforce for not to indulge in Gambling and drinking alcohol	3	2					
			Prohibit Visiting of workers to nearby village after 7 pm and living outside	3	2					
			Instruct workforce to respect local culture, tradition, rights etc.	3	2					
			Request police to patrol in the camp site and adjoining villages	3	2					
			Launch awareness programs concerning the human trafficking and possibility of spread of STDs and HIV/AIDS	3	2					
	Project Activities relating to health and safety issues at work areas	Health and hygiene (unsafe working conditions, accidents, fire hazard, transmission of communicable disease)	Provide facilities of health check, proper sanitation and hygiene, health care, control of epidemic diseases to workforce	2	1					
			Provide awareness on STD, HIV/AIDS	2	1					
			Place adequate warning system, signboard, hoarding post and prohibit visiting risky area as necessary	2	1					
			Make available first aid kits ambulance and fire fighting gears	1	1					
			Make available protection gears to all construction workers and compensate for the loss of life or any type of injuries	1	1					
	Dislocation of archaeological artifacts, if any	Loss of Archaeological and cultural sites	Protect archaeological and cultural sites In case of relocation, consult local community	3	2					

Project stage	Project Activity	Potential Environmental Impacts	Proposed mitigation measures	Mitigation Compliance	Mitigation Effectiveness	DSC Remarks				
Preparation for construction				**Indicate in 1-5 scale**	**Indicate in 1-5 scale**	**Compliance (C); Non Compliance (NC) Not applicable (NA)**				
						C			**NC**	**NA**
						<25%	25-50%	>75%		
	Demolition of unnecessary structures	Decline in aesthetics and inconvenience to people	Remove all unnecessary structures and reinstall the facilities and others to the original condition	3	2					
	Traffic management at construction sites	Traffic Congestion	Provide information about construction schedule to the local people	3	2					

Space for additional remarks (if any):

Prepared by:**CTCE/KALIKA JV** Submitted to: **SMEC-Brisbane-AQUA-BDA-CEMAT**

Date of submission:**April, 2014**

Note: *Scale 1. Very Good (all implemented); 2. Good (the majority implemented); 3. Fair (some implemented); 4. Poor (few implemented); 5. Very Poor (very few or no implemented)*

LAB REPORT

SUMMARY