

Government of the People's Republic of Bangladesh  
Ministry of Local Government  
(Local Govt. Division)

## PROGRESS REPORT

ZILLA ROAD MAINTENANCE  
AND IMPROVEMENT PROJECT  
(USAID PROJECT NO. 388-0056)

FOR THE MONTH OF  
MARCH '1985.

BY  
Wilbur Smith and Associates  
In association with  
Bangladesh Consultants Ltd.  
and  
Public Administration Service

ZILA ROADS MAINTENANCE AND IMPROVEMENT PROJECT

USAID PROJECT No. 388-0056

PROGRESS REPORT  
March 1985

TABLE OF CONTENTS

S u b j e c t.	Page no.
List of Exhibits .....	iv
List of Appendices.....	iv
List of Abbreviations.....	v
1.0 <u>GENERAL</u> .....	1
2.0 <u>ORGANIZATION AND MANAGEMENT</u> .....	1
3.0 <u>MAINTENANCE SYSTEM AND SUPERVISION</u> .....	2
3.1 <u>General</u> .....	2
3.2 <u>Sylhet District</u> .....	2
3.2.1 <u>General</u> .....	2
3.2.2 <u>Sylhet Maintenance Projects</u> .....	3
3.3 <u>Rangpur District</u> .....	5
3.3.1 <u>General</u> .....	5
3.3.2 <u>Rangpur Maintenance Projects</u> .....	5
3.4 <u>Faridpur District</u> .....	6
3.5 <u>Maintenance Management</u> .....	6
4.0 <u>PREPARATION OF TECHNICAL SPECIFICATIONS</u> .....	6
5.0 <u>TRAINING</u> .....	6
5.1 <u>General</u> .....	6
5.2 <u>On-The-Job Training</u> .....	8
5.2.1 <u>General</u> .....	8
5.2.2 <u>District Soil Laboratory Activities</u> .....	8
5.2.3 <u>Maintenance Training</u> .....	8

TABLE OF CONTENTS (Cont.)

	Subject	Page No.
5.3	<u>Domestic (In-Country) Training</u> .....	8
5.3.1	<u>General</u> .....	8
5.3.2	<u>System Assessment</u> .....	8
5.3.3	<u>System Design</u> .....	9
5.3.4	<u>System Implementation</u> .....	9
5.4	<u>U.S.A./Third Country Training</u> .....	9
5.4.1	<u>General</u> .....	9
5.4.2	<u>Program Preparation</u> .....	9
5.4.3	<u>Program Implementation</u> .....	9
5.5	<u>Report Preparation</u> .....	10
5.5.1	<u>General</u> .....	10
5.5.2	<u>Project Training Report</u> .....	10
5.5.3	<u>Audio-Visual Presentations</u> .....	10
6.0	<u>CONSTRUCTION SYSTEM AND SUPERVISION</u> .....	10
6.1	<u>General</u> .....	10
6.2	<u>Sylhet District</u> .....	11
6.3	<u>Rangpur District</u> .....	11
6.4	<u>Faridpur District</u> .....	11
7.0	<u>PROCUREMENT OF EQUIPMENT</u> .....	11
7.1	<u>Local Procurement</u> .....	11
7.1.1	<u>Tar Boilers</u> .....	11
7.1.2	<u>Trailer-Mounted Water Tanks</u> .....	57
7.2	<u>International Procurement</u> .....	57
7.2.1	<u>Heavy Equipment, Vehicles, And Tools</u> .....	57
7.2.2	<u>WSA Office Vehicles</u> .....	57
8.0	<u>PERSONNEL</u> .....	57
9.0	<u>PROBLEMS AND PROPOSED SOLUTIONS</u> .....	57
9.1	<u>Organization And Management</u> .....	57
9.2	<u>Maintenance System And Supervision</u> .....	57
9.3	<u>Preparation Of Technical Specifications</u> .....	57

TABLE OF CONTENTS (Cont.)

Subject	Page No.
9.4 <u>Training</u> .....	58
9.5 <u>Construction System And Supervision</u> .....	58
9.6 <u>Procurement Of Equipment</u> .....	58
9.7 <u>Personnel</u> .....	58
9.8 <u>Miscellaneous</u> .....	58
10.0 <u>MISCELLANEOUS</u> .....	58

ZILA ROADS MAINTENANCE AND IMPROVEMENT PROJECT

USAID PROJECT No. 388-0056

PROGRESS REPORT

March 1985

LISTS OF EXHIBITS AND APPENDICES

Subject	Page No.
<u>L i s t   O f   E x h i b i t s</u>	
Exhibit I - ZRMI Training Program Schedule And Current Status .....	7
Exhibit II - Map, Sylhet District .....	12
Exhibit III - Construction Supervision Projects - Sylhet (7 sheets) .....	13
Exhibit IV - Bar Charts, Project Schedules, And Current Status - Sylhet ...	20
Exhibit V - Map, Rangpur District .....	27
Exhibit VI - Construction Supervision Projects - Rangpur (8 sheets) .....	28
Exhibit VII - Bar Charts, Project Schedules, And Current Status - Rangpur ..	36
Exhibit VIII - Map, Faridpur District .....	44
Exhibit IX - Construction Supervision Projects - Faridpur (5 sheets) .....	45
Exhibit X - Bar Charts, Project Schedules, And Current Status - Faridpur .	50
<u>L i s t   O f   A p p e n d i c e s</u>	
Appendix A - Photographs Of Maintenance Activities - Sylhet, Rangpur,	59
Appendix B - District Soil Laboratory Activities - Sylhet, Rangpur, Faridpur	64
Appendix C - Photographs Of Construction Activities - Sylhet, Rangpur, and Faridpur Districts .....	77
Appendix D - Current Status Of Personnel .....	118
Appendix E - Monthly Financial Statement, March 1985 .....	121

LIST OF ABBREVIATIONS AND DEFINITIONS

---

List of Abbreviations

---

AIT	=	Asian Institute of Technology.
AE	=	Assistant Engineer.
BCL	=	Bangladesh Consultants Limited.
BDG	=	Bangladesh Government.
DE	=	District Engineer.
FM	=	Fineness Modulus.
GOB	=	Government of Bangladesh.
HBB	=	Herring Bone Bond.
IRWP	=	Intensive Rural Works Programme.
LGEB	=	Local Government Engineering Bureau.
PM	=	Project Manager.
PAS	=	Public Administration Services.
P&D Engineer.	=	Planning And Design Engineer.
R & H	=	Roads And Highways.
RE	=	Resident Engineer.
RB	=	Running Bill.
RCC	=	Reinforced Cement Concrete.
ROW	=	Right of Way.
SRWP	=	Special Rural Works Programme.
USAID	=	United States Agency for International Development.
UNO	=	Upazila Nirbahi Officer, (Senior most Administrative Officer in Upazila).
WSA	=	Wilbur Smith And Associates.
WBM	=	Water Bound Macadam.
WDB	=	Water Development Board.
XEN	=	Executive Engineer.
ZRMI	=	Zila Roads Maintenance And Improvement Project.

---

Definitions

---

KHOA	=	Brick aggregates.
------	---	-------------------

---

## ZILA ROADS MAINTENANCE AND IMPROVEMENT PROJECT

USAID PROJECT NO. 388 - 0056

### PROGRESS REPORT

March 1985

#### 1.0 GENERAL

All three districts have reported that the quality of workmanship displayed by the local contractors is improving. Both Faridpur and Rangpur have reported that a shortage of road rollers is a handicap to better progress. Sylhet and Faridpur have reported that the unseasonably heavy rains during the month had an adverse impact on construction work; the former was more adversely affected than the latter. On the other hand, Rangpur reports that the heavy winds of this time of the year are having an adverse effect on fill material placed for shoulder improvement. The dry, uncompacted material is being blown away.

All three districts are upset over the reduced maintenance budgets. The RE's seem to feel that access facilities now available should be maintained in year-round passable condition rather than merely expanding the access network with new work.

The flag dates for submittal of various manuals stipulated as contractual obligations are rapidly approaching. Current status of each of these manuals follows :

- o Specifications Manual - Final printing to be submitted by June 1985.
- o Road Construction Manual - Final printing by June 1985.
- o Soil Survey Manual - Final printing by June 1985
- o Survey Manual - Final printing by June 1985.
- o Organization Management Manual - Final printing by July 1985
- o Training Report - Final printing by June 1985.

#### 2.0 ORGANIZATION AND MANAGEMENT

Arrangements are being made in-house to review and revise the report submitted in late 1983. If comments on the draft report submitted previously can be received in the interim, then the final revised report will be ready by mid-year.

### 3.0 MAINTENANCE SYSTEM AND SUPERVISION

#### 3.1 General

The reduction in maintenance funds available to each of the three districts has caused great consternation. Each district reports that maintenance funds now approved are not sufficient to meet the requirements.

Sylhet has reported that the ongoing maintenance work within the district has improved significantly since the February meeting between the staffs of the XEN and the RE. Uniformity in maintenance criteria and practices is now being achieved throughout the district.

Faridpur has reported that, due to a shortage of funds, all maintenance work stopped on 20 March. Rangpur reports that the sum of the cost of the maintenance materials for which tenders have been requested, plus the funds already expended in the maintenance of only one project will be more than the total maintenance funds now available. Therefore, if this scenario persists, there will be no more funds available for maintenance work this year.

The roads involved in the district maintenance programs are shown on the respective (old) District maps, which are identified as follows :

- o Exhibit II - Sylhet District
- o Exhibit V - Rangpur District
- o Exhibit VIII - Faridpur District

#### 3.2 Sylhet District

##### 3.2.1 General

The heavy thundershowers in mid-March were beneficial in the maintenance of earth roads because the additional moisture improved the traffic compactive effort on recently reshaped roads. The ponded water also was a direct indication of low spots in the road's surface that needed to be corrected.

Some of the roads which had to be dropped from the maintenance program because of the reduced budget had already suffered from a complete lack of maintenance. As a result, after another monsoon season, these roads will now require complete reconstruction. The RE feels that money now being spent on construction projects on other reaches of these roads would be better applied to the maintenance of the reaches suffering from no maintenance.

Photos of the maintenance work in Sylhet may be found in Appendix A.

### 3.2.2 Sylhet Maintenance Projects

#### Hatimganj - Dhakadakshin Road - Earth

All preventive maintenance work has been completed and routine and remedial work is now in progress. Pipe culvert placement will be done as funds are available.

#### Badaghat Road - Mixed

This road is an original Pilot Project from '83 - '84, on which, for a variety of reasons, maintenance of the asphalt portion was delayed until late December 1984. It is now the showpiece of the ongoing maintenance work. Of a total length of 4.5 km, some 3 km have been completed.

#### Shahbondar - Shamsherganj Road - Paved

There are about 4.5 km of paved road prior to the earth reach of the road, where stage construction is underway under the 1984 - 1985 projects. An apparent lack of coordination between the Water Development Board and the Zila Parishad has created an ambiguous situation on this road. Maintenance of the paved section was originally considered the 1984 - 1985 program because sections of this road are badly deteriorated. To subject these damaged sections to another monsoon season without adequate patching and repairing will reduce them to the level of reconstruction rather than maintenance. However, present status of the road is that maintenance work has been cancelled.

#### Munshi Bazar - Kamalganj - Kurmachar Road - Earth

Preventive maintenance has been completed on the 8.6 km stretch to Adampur, and the work crew is now engaged in remedial or routine work. This is one of the roads which has benefitted from the recent rains and the improved traffic compactive effort. However, the depressions which have been revealed must now be corrected to improve surface runoff.

#### Bahubal - Putijuri - Bijnaghat Rod - Mixed

The paved portion of this road extends for approximately 5.5 km from Bahubal to Dubai Bazar. Most of this stretch had been paved by the R. & H. Department - two sections within the past 18 months. With the exception of about 1 km paved by Zila Parishad, the pavement is badly deteriorated and requires immediate maintenance and some reconstruction.

Maintenance of the earth portion, starting at Putijuri and extending for 7.6 km, has been in progress and the results have been excellent. Because of this maintenance work, and despite construction or reconstruction of drainage structures, regular bus service has been maintained as far as Chandracharra.

Dulaikhāl - Mirpur Road - Earth

Dropped from the maintenance program because of curtailment of funds.

Nabiganj - Baniachung Road - Earth

Since the previously mentioned February meeting on maintenance procedures, the maintenance work on this road has improved considerably. For this reason, the Consultants have recommended that work continue from Nabiganj for a distance of 9.6 km, or until all of the drainage structures of the 1984-1985 program have been completed. This is another example where good maintenance work has resulted in regular bus service where only an occasional bicycle or motorbike formerly could travel.

Sunamganj - Chhatak Road - Earth

Maintenance work continues on this road, but for political expediency, the work has been transferred to the Chhatak end.

Shahbag - Kanaighat Road - Paved

It is expected that the maintenance of this road will begin subsequent to the completion of the Badaghat road. Tenders have been awarded for bituminous and other materials.

Fenchuganj - Maijgaon Road - Pavement

This road had been dropped from the maintenance program because of budget restrictions. However, a meeting to discuss this matter was held on 10 March. In attendance were the XEN, RE, ARE, and the Upa-Zila Nirvahi Officer (UNO) from Fenchuganj. The UNO requested that some remedial patching be done utilizing brick aggregates recovered from the culvert replacement on the Gailachara portion. This request is now being considered.

Dhakadakshin - Beanibazar Road - Paved

Because of budget limitations, this scheme has been dropped from the maintenance program.

### Tajpur - Syedpur Nayabondar Road - Earth

The maintenance work on this road has been taking place under two different programs; from Tajpur to the Goala Bazar intersection has been under the ZRMI Project 1984 - 1985 program, while from Goala Bazar to Ashakandi has been under the Local Chairman and the Food For Peace Program.

Zila Parishad personnel have satisfactorily completed some 3.8 km from the Tajpur end. However, the 7 km completed from Goala Bazar to Ashakandi by the forces of the Local Chairman is a different story. In this reach, no attempt had been made to level, camber, or compact, nor even to break up the large clods that composed the new fill. The road had been closed to all traffic, but the XEN prevailed upon the Local Chairman to grade the road and allow local traffic to pass and aid in the compactive effort. A roller is being made available from Omaipur Bazar to help break up the large clods. These efforts have made it possible to transport a concrete mixer to Nayabondar, where some additional maintenance work is in progress.

### 3.3 Rangpur District

#### 3.3.1 General

As mentioned previously, the reduced maintenance budget is causing serious problems in this District. Out of a total budget of Tk. 1,140,000, a total of Tk. 317,000 has been earmarked for maintenance of the Mahiganj - Damdama Road, which will leave a balance of Tk. 823,000 in the budget. However, tenders have been requested for the supply of maintenance materials with an estimated total cost of Tk. 1,125,300, which is more than the remainder of the budget. It is not known where the additional funds will be obtained.

#### 3.3.2 Rangpur Maintenance Projects

##### Rangpur - Mahiganj Road

No work was done on this project during this reporting period.

##### Rangpur - Badarganj Road

No work was done on this project during this reporting period.

##### Mahiganj - Damdama Road

During this reporting period, maintenance work on this project consisted of sloping and dressing the shoulders and side slopes. In general, that work which has been done is sub-standard. The material used in the earth fill work was too dry, and much of it is being blown away by the strong winds which prevail this time of the year.

### 3.4 Faridpur District

At the end of this reporting period, the RE reported that on 20 March all maintenance activity came to a halt because of a shortage of operating funds.

#### Rajbari - Baliakandi Road

Patching of bituminous paving was completed from Sta. 17 + 843 to Sta. 18 + 400. In group 8, 550 m of existing WBM was restored to design thickness.

#### Talma - Nagarkanda Road

Bituminous pavement repair was 40 percent complete, and the abutments of 2 bridges were repaired.

#### Pukuria - Sadarpur Road

Detailed inventory was completed, but no work was undertaken.

### 3.5 Maintenance Management

Comments on the draft maintenance management report, which was submitted in January, still have not been received. The time element is rapidly becoming critical; these comments should be received from all interested parties as quickly as possible.

## 4.0 PREPARATION OF TECHNICAL SPECIFICATIONS

During the first week in March, the Consultant's specifications and design engineer visited both Sylhet and Faridpur to consult with the respective RE's and XEN's concerning the draft specifications and designs. This completed his site visits, for he had made a visit to Rangpur in February. Note was taken of all suggestions for inclusion in the finished specifications.

Discussions with the PM continue. The most recent discussions have centered on the finalization of the scope and orientation of the specifications and other documents for inclusion in the finished work.

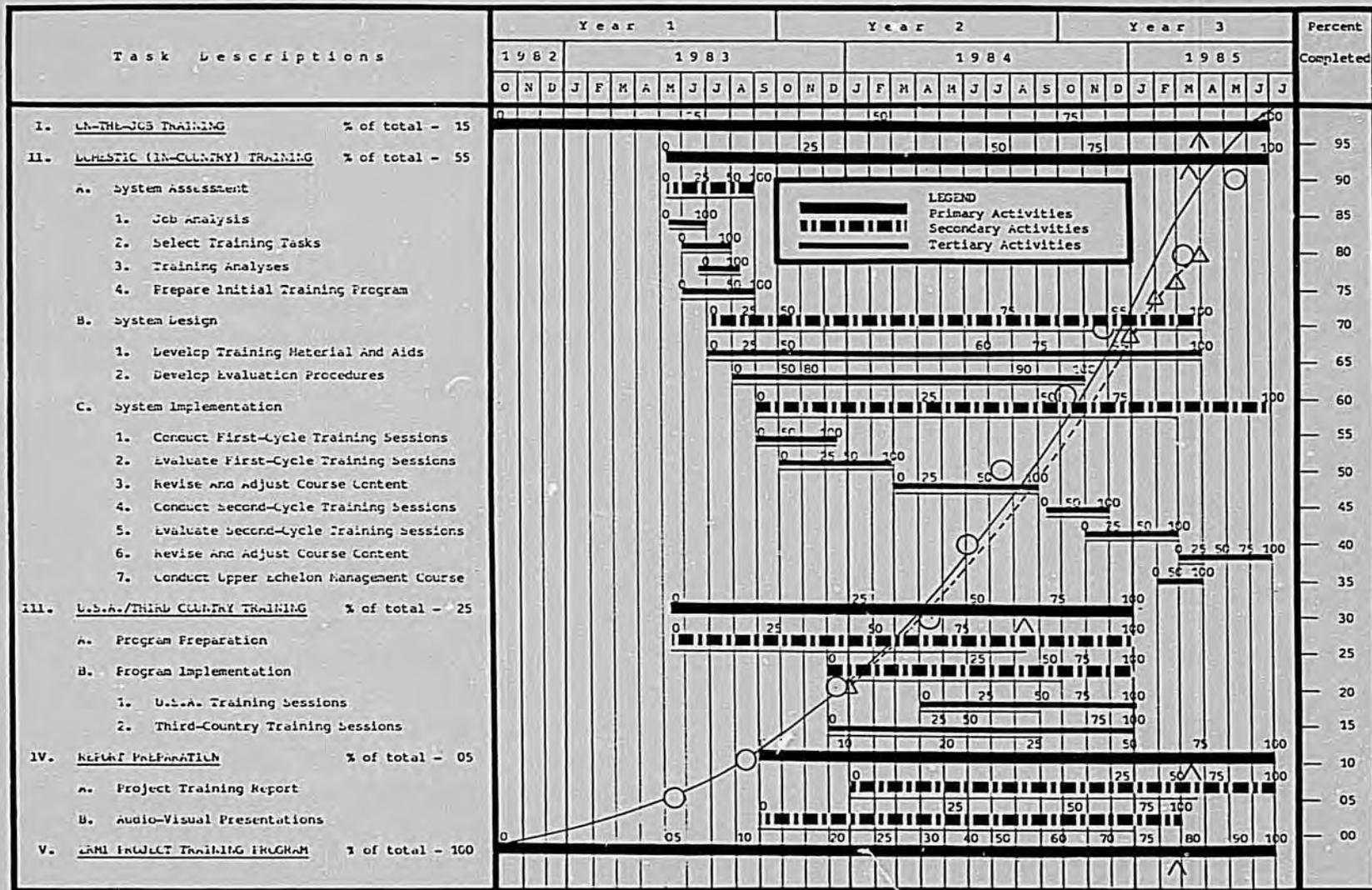
Work in the Dhaka Office is on schedule, and it is planned that the final draft will be completed by the end of April 1985. It is expected that the finished document will be available by the end of May 1985.

## 5.0 TRAINING

### 5.1 General

As shown on Exhibit I, the overall progress of the ZRMI Project Training Program, as of the end of this reporting period, was about 79 percent, compared

Exhibit I - ERMI PROJECT TRAINING PROGRAM SCHEDULE AND CURRENT STATUS



to a scheduled progress of 89 percent. This slippage reflects a continuing lack of progress in the U.S.A/Third Country Training element, which has a relative weight of about 25 percent of the entire program.

It should be noted that with this reporting period the progress curves shown on Exhibit I have been adjusted to more accurately reflect the completion of the ZRMI Project as of mid-1985. The principal change has been in the "planned" schedule curve, which has been moved upward to indicate completion of the training program on 30 June 1985. Naturally, there has been no change in the "achieved" progress curve. However, for the last few months of the program life, the spread between "planned" and "achieved" progress becomes a little greater. It is now estimated that final achieved progress will be about 85 percent on 30 June 1985.

## 5.2 On - The - Job Training

### 5.2.1 General

Since this is an ongoing, but intermittent, activity, planned progress had to be taken as a straight-line function, and the bar chart was plotted accordingly. It is also assumed that actual accomplished progress will follow the same pattern. Therefore, from Exhibit I, progress as of the end of this reporting period is estimated at 90 percent.

### 5.2.2 District Soil Laboratory Activities

Summaries of the activities of the individual district soil laboratories are attached as Appendix B to this report.

### 5.2.3 Maintenance Training

Every site inspection trip by the RE, or any of his staff, is an exercise in maintenance training. In some districts, the results of this training are more evident than in others. In general, it can be said that the day-to-day transfer of knowledge is having a beneficial impact on maintenance and improvement operations.

## 5.3 Domestic (In-Country) Training

### 5.3.1 General

It is estimated that, as of the end of this reporting period, progress of this primary activity was 89 percent.

### 5.3.2 System Assessment

This secondary activity is 100 percent complete.

### 5.3.3 System Design

This secondary activity is 100 percent complete.

### 5.3.4 System Implementation

This secondary activity is about 85 percent complete

First-Cycle Training Sessions - 100 percent complete

First-Cycle Evaluations - 100 percent complete.

(First) Course Revision And Adjustment - 100 percent complete

Second-Cycle Training Sessions - 100 percent complete

Second-Cycle Evaluations - 100 percent complete

(Second) Course Revision And Adjustment - 25 percent complete

Upper Echelon Management Course - The LGEB Training Unit, through IRWD, is planning to present a management training course. Therefore, LGEB has shown little enthusiasm for the proposed ZRMI course. As a result, this course has been suspended indefinitely.

## 5.4 U.S.A/Third Country Training

### 5.4.1 General

It is estimated that, as of the end of this reporting period, progress of this activity remains unchanged at about 70 percent.

### 5.4.2 Program Preparation

Program preparation remains at about 85 percent complete.

There is now some talk of rescheduling the second AIT course for June 1985. However, LGEB has not yet produced confirmation of BDG approval for the 15 proposed participants. No arrangements can be finalized until this approval is in hand.

There is still no consensus for scope or number of participants for the second and succeeding U.S.A observation/training courses.

### 5.4.3 Program Implementation

First U.S.A Session - Considered to be 100 percent complete, although no trip reports have yet been received from any of the three participants.

Second U.S.A. Session - Still no additional progress to report on this segment of the training program.

First AIT Session - Considered to be 100 percent complete, although the only trip report received to date was that prepared by the DE, Rangpur.

Second AIT Session - Further activity to implement this session is suspended awaiting confirmation of BDG approval of the 15 selected participants.

## 5.5 Report Preparation

### 5.5.1 General

This primary activity is about 70 percent complete.

### 5.5.2 Project Training Report

This secondary activity is a little behind schedule; it is considered to be about 65 percent complete.

### 5.5.3 Audio-Visual Presentations

This secondary activity remains at about 70 percent complete. It is planned that the balance of the slide/cassette presentations will be completed by the end of May 1985.

## 6.0 CONSTRUCTION SYSTEM AND SUPERVISION

### 6.1 General

All three districts have reported good progress for this reporting period. However, Rangpur reports that there has been some decrease in quality of construction. The early rains this year have apparently had the greatest negative impact in Sylhet, where progress on some of the drainage structures was impeded for a short time.

For the first time, one of the districts (Sylhet) has reported a lack of cooperation on the part of local villagers, especially with regard to donating land for borrow areas or for the realignment of drainage channels. The only previous reports of this type had been in relation to the location and/or R.O.W. for drainage structures.

Both Sylhet and Rangpur report some problems on budgetary restrictions and cost distribution between USAID and BDG. These problems are being discussed and attempts made to more clearly define the guidelines.

Photographs of construction activities in all three districts may be found in Appendix C.

## 6.2 Sylhet District

Exhibit II is a map of the (old) Sylhet District, on which have been marked, with appropriate symbols and numbers, both the maintenance and the construction projects in the Sylhet District.

Exhibit III, consisting of 7 sheets, lists all the construction projects in the Sylhet District, by road and by fiscal year in which programmed. The "Serial Number" has no significance other than to serve as a simple symbol for locating the project on its respective map.

Exhibit IV, consisting of 6 sheets, contains the bar charts and progress curves for those projects that are currently active.

## 6.3 Rangpur District

Exhibit V is a map of the (old) Rangpur District, on which have been marked, with appropriate symbols and numbers, both the maintenance and the construction projects in the Rangpur District.

Exhibit VI, consisting of 8 sheets, lists all the construction projects in the Rangpur District, by road and by fiscal year in which programmed. The "Serial Number" has no significance other than to serve as a simple symbol for locating the project on its respective map.

Exhibit VII, consisting of 7 sheets, contains the bar charts and progress curves for those projects that are currently active.

## 6.4 Faridpur District

Exhibit VIII is a map of the (old) Faridpur District, on which have been marked, with appropriate symbols and numbers, both the maintenance and construction projects in the Faridpur District.

Exhibit IX, consisting of 5 sheets, lists all the construction projects in the Faridpur District, by road and by fiscal year in which programmed. The "Serial Number" has no significance other than to serve as a simple symbol for locating the project on its respective map.

Exhibit X, consisting of 6 sheets, contains the bar charts and progress curves for those projects that are currently active.

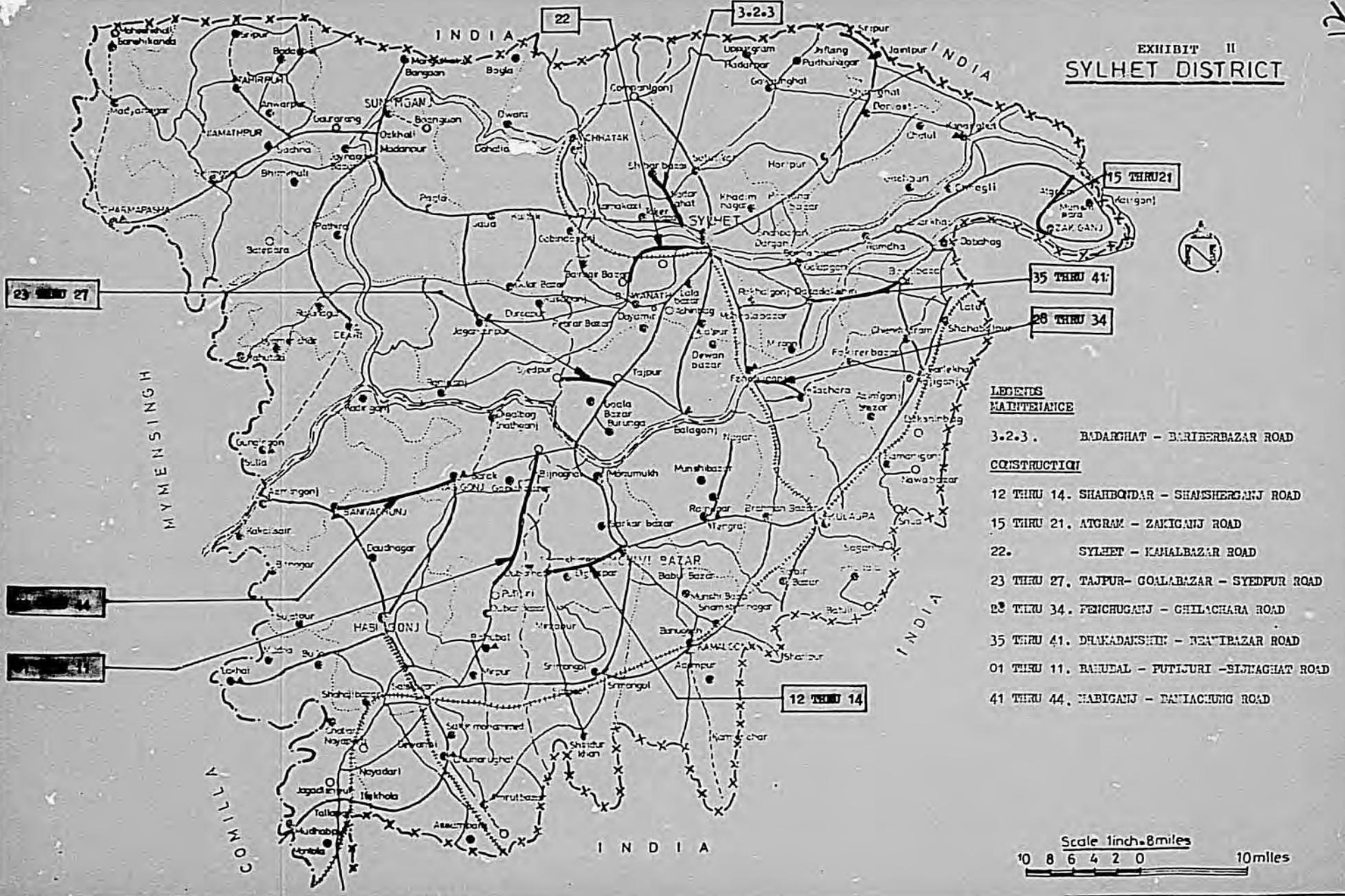
## 7.0 PROCUREMENT OF EQUIPMENT

### 7.1 Local Procurement

#### 7.1.1 Tar Boilers

Still waiting for acceptance of A.I.D/PIL by G.O.B.

# EXHIBIT II SYLHET DISTRICT



### LEGENDS MAINTENANCE

- 3.2.3. BADARGHAT - BARIERBAZAR ROAD
- CONSTRUCTION
- 12 THRU 14. SHAHBONDAR - SHAMISHERGANJ ROAD
- 15 THRU 21. ATGRAM - ZAKIGANJ ROAD
- 22. SYLHET - KAMALBAZAR ROAD
- 23 THRU 27. TAJPUR- GOALABAZAR - SYEDPUR ROAD
- 28 THRU 34. FENCHUGANJ - GHILACHARA ROAD
- 35 THRU 41. DHAKADAKSHIN - NEATBAZAR ROAD
- 01 THRU 11. BANUAL - PUTIJURI -SIJTAGHAT ROAD
- 41 THRU 44. HABIGANJ - BANJACHUNG ROAD

Scale 1inch=8miles  
10 8 6 4 2 0 10miles

Serial Number	Contract Identification	Description Of work Order	Percent Complete	Current Comments
<b>Bahubal - Putijuri - Sijnaghat Road</b>				
<b>1982 - 1983 Projects</b>				
01	ZRMI/11/82-83	Bituminous pavement	100	Final bill processed
<b>1983 - 1984 Projects</b>				
02	ZRMI/01/83-84	Bituminous pavement (250 m)	100	Final bill processed - Completed 12/84
03	ZRMI/02/83-84	Box Culvert (13.3 m) (Putijuri)	100	Final bill processed - Completed 01/85
04	ZRMI/03/83-84	Box Culverts, 2 nos. (Resurat & Burigao)	100	Final bill processed - Completed 05/84
05	ZRMI/04/83-84	Box Culverts, 3 nos. (Revised) (Fultoli & Karcigaon)	100	Final bill processed - Completed 09/84
06	ZRMI/05/83-84	Box Culvert (Kargaon)	100	Final bill processed - Completed 05/84
07	ZRMI/06/83-84	Box Culverts, 4 nos. (Revised) (Gazipur, Sangaon, & Lebpur) (Reduced to 2 nos. box culverts)	100	Final bill processed - Completed 02/85
08	ZRMI/07/83-84	RCC Pipe Culverts, 14 nos. (Revised)	100	Final bill processed - Completed 03/85 - Final cleanup accomplished
<b>1984 - 1985 Projects</b>				
09	ZRMI/10/84-85	Bituminous pavement (Putijuri) Contractor: Mr. Aboul Kallane Contract Price: Tk 1,825,174	35	Except for filling depressions and other remedial work, the contractor has done no additional work during this reporting period. It is assumed that this work stoppage was due to several reasons; principally the political holidays and an accident involving two of the contractor's trucks. One running bill has been processed.
10	ZRMI/11/84-85	Box Culverts, 3 nos. (Revised) Contractor: Mr. Bablu Das Contract Price: Tk 693,092	080	With the exception of appropriate site cleanup, the three original structures have been completed, as has the additional 1.5 m box culvert. Contractor now working on the additional 3.6 m culvert; the bottom slab was cast during this reporting period. One running bill has been processed.
11	ZRMI/12/84-85	Reconstruct existing bridge slabs, 10 nos. Contractor: Mr. Saleh Ahmed Contract Price: Tk 631,219	055	Contractor has been doing quality work on the bridge slabs. However, the demolition of the original bridge slab and part of the abutment is a slow process because it is all done with hand labor. The complete structures have not had corresponding approach work and final cleanup executed in an acceptable manner. One running bill has been processed.

Serial Number	Contract Identification	Description Of Work Order	Percent Complete	Current Comments
<u>Shahbondar - Shamsheganj Road</u>				
<u>1982 - 1983 Projects</u>				
12	ZHI/17/82-83	Bituminous Pavement	100	Final bill processed
<u>1984 - 1985 projects</u>				
13	ZRMI/5A/84-85	Leveling course (2.825 km) Contractor: Contract Price: Tk 617,175	040	<u>Approximately 60 percent of the earth fill has been accomplished, but overall progress has been slow. It seems that the availability of fill depends upon the willingness of local villagers and the local Chairman to donate it. As a result, the embankment work has been piecemeal over the entire reach of contract, with no attempt made to level or camber the road surface. Very little aggregate has been stockpiled. No running bill has been processed.</u>
14	ZHI/5B/84-85	Leveling course (2.625 km) Contractor: Contract Price: Tk 618,303	045	<u>A conflict has occurred on this section of road. The Water Development Board has given a work order to another contractor to do work on a portion of the road already under construction by the ZRMI Project contractor. This confusion has been a source of delay in progress. No running bill has been processed.</u>
<u>Note: A 0.75 m pavement project was taken up on this road under the 1982-1983 program. No project was taken up under the 1983-1984 program because the Water Development Board (WDB) claimed jurisdiction over the road. This jurisdiction claim was later relinquished. However, two separate stage construction contracts and a maintenance program were scheduled under the 1984-1985 program. The maintenance program has since been canceled due to a shortage of funds.</u>				
<u>In view of this controversy and the limitations of the maintenance funds, the Consultant feels that money budgeted for the stage construction mentioned above would be better spent on the repair and maintenance of the approximate 5 km of pavement beginning at Shahbondar and ending at the start of the 1982-1983 pavement project. This recommendation is made for the following reasons:</u>				
<ol style="list-style-type: none"> <li><u>1. The stretch of pavement from Shahbondar is deteriorating rapidly and is likely to require reconstruction if not attended before the monsoon season.</u></li> <li><u>2. The earthwork accomplished on the above two projects would have an opportunity for consolidation by local traffic before any pavement is placed on it.</u></li> <li><u>3. It would allow time for the settlement of the question of jurisdiction of the road.</u></li> <li><u>4. If the funds expended for the 1982-1983 project, and the funds budgeted for the 1984-1985 projects, are justifiable, then it follows that available funds spent in maintenance of existing access facilities would also be justifiable.</u></li> </ol>				

Serial Number	Contract Identification	Description Of work order	Percent Complete	Current Comments
<u>Atgram - Zakiganj Road</u>				
<u>1982 - 1983 Projects</u>				
15	LRM/16/b2-83	bituminous pavement (2 km)	100	<u>Final bill processed.</u>
<u>1983 - 1984 Projects</u>				
16	LRM/09/83-84	Box Culvert (23 m) Contractor: Mr. A. Mumith Khan Contract Price: Tk 546,150	100	<u>Final bill being processed. Contractor must correct the approaches which have settled due to lack of proper compaction.</u>
17	LRM/10/83-84	Bituminous Pavement (1.78 km)	100	<u>Final bill processed.</u>
18	LRM/11/83-84	Leveling course (4.55 km) Contractor: Mr. Amituzzaman Chowdhury Contract Price: Tk 1,278,722	100	<u>Final bill being processed. The contractor was instructed to stock-pile aggregates over the entire reach of the contract so that maintenance crews could use the material for remedial work.</u>
<u>1984 - 1985 Projects</u>				
19	LRM/13/84-85	Bridge (Revised to Box Culvert) (31 m) Contractor: Mr. Rezaul Karim Contract Price: Tk 963,930	060	<u>Good progress was being made on this project until halted by the early rains and subsequent flooding of the job site. It is unlikely that any further work can be done until late in 1985. One running bill processed.</u>
20	LRM/14/84-85	HCC Pipe Culverts, 15 nos. Contractor: J. C. And Co. Contract Price: Tk 256,978	---	<u>Still no progress to date. This contract should be canceled.</u>
21	LRM/15/84-85	Bridge (Revised to 3 nos. Box Culverts) (66 m)		
	15A & C	Box Culverts, 2 nos. (9 m) Contractor: Mr. Abdul Mumith Khan Contract Price: Tk 557,782	075	<u>Work on these two culverts, located at each end of a large gap in the road embankment, had been progressing well, with top slab of 15A cast on 27 March. However, flooding of the job site has delayed progress, but it is felt that progress attained to date will permit the job to continue. One running bill has been processed.</u>
	15 B	Box Culvert (24.4 m) Contractor: M/S Mukthakim Corporation Contract Price: Tk 1,022,810	015	<u>All bullah piling and foundation excavation was completed, and the contractor was preparing to cast the CC slab, when heavy rains caused flooding of the site. It is unlikely that further work on this structure will be possible until next dry season. No running bills have been processed.</u>

## Exhibit III - CONSTRUCTION SUPERVISION PROJECTS - SYLHET

Sheet 4 of 7

Serial Number	Contract Identification	Description Of Work Order	Percent Complete	Current Comments
<u>Sylhet - Kamal Bazar Road</u>				
<u>1962 - 1983 Projects</u>				
22	LMI/19/82-83	Bituminous pavement	100	Final bill processed
<u>Tajpur - Goalabazar - Syedpur - Khadimpur Road</u>				
<u>1982 - 1983 Projects</u>				
23	LMI/20/82-83	RCC Pipe Culverts, 13 nos. (Revised)	100	Final bill processed
24	LMI/21/82-83	Box Culvert	100	Final bill processed
<u>1983 - 1984 Projects</u>				
25	LMI/12/83-84	Bituminous pavement (Revised)	100	Final bill processed
26	LMI/13/83-84	Box Culvert (10.1 m) (New Market) (Revised) Contractor: Mr. Shahid Chowdhury Contract Price: Tk 746,486	095	<u>The problem of K.O.W. and the lack of sufficient suitable fill material has continued to delay the completion of the approaches to this structure. However, sufficient backfill has been accomplished to permit the passage of traffic. Two running bills have been processed.</u>
<u>1984 - 1985 Projects</u>				
27	LMI/16/84-85	Bridge (31 m) (Nayabondar) (Revised to 24.4 m Box Culvert) Contractor: Contract Price: Tk 944,150	040	<u>The contractor has completed the excavation of the foundation, driving of the bullah piling, and the casting of the C.C. slab. However, the work being done by the Local Chairman on the road leading to this job site has prevented the delivery of cement, aggregates, and concrete mixer to the site. So far, recent rains have not adversely affected progress, but if additional materials do not soon reach the job site, this project could be delayed until the end of 1985. No running bills processed.</u>

Serial Number	Contract Identification	Description Of Work Order	Percent Complete	Current Comments
<u>Fenchuganj - Maijgaon - Ghilachara Road</u>				
<u>1982 - 1983 Projects</u>				
28	ZRMI/22/82-83	Bituminous pavement (0.5 miles) (Maijgaon) Contractor: Mr. Ziaul Islam Contract Price: Tk 747,545	100	Final bill is in process, but it is being held until some discrepancies are clarified and responsibility for final cleanup defined.
29	ZRMI/23/82-83	RCC Pipe Culverts, 6 nos. Contractor: M/S Ayra and Co. Contract Price: Tk 56,602	080	Work had been halted on this contract for most of this reporting period. Headwalls are now under construction and execution of site finish work is in process. One running bill has been processed.
<u>1983 - 1984 Projects</u>				
30	ZRMI/14/83-84	Earthwork and Leveling course (2.8 km) (Revised) Contractor: Mr. Shahid Chowdhury Contract Price: Tk	078	Work on this contract had been halted for most of the month, but it has again been undertaken, along with some fill work, near Ghilachara. This latter work had been delayed because local landowners were reluctant to donate the borrow area. Two r.b.'s processed.
<u>1984 - 1985 Projects</u>				
31	ZRMI/17/84-85	Bituminous pavement (0.925 km) Contractor: Mr. Shahid Chowdhury Contract Price: Tk 764,537	050	No further progress during this reporting period. This project has been canceled.
32	ZRMI/18/84-85	Leveling course and Earthwork (2.8 km) Contractor: Mr. Masleh Uddin Chowdhury Contract Price: Tk 455,730	068	Lack of earth filling by ZRMI/14/83-84 has hindered uniform progress on this project. That work which has been accomplished is of good quality. One running bill has been processed.
33	ZRMI/19/84-85	Box Culverts, 2 nos. (6.8m & 3.6 m) Contractor: Mr. Kazi Munif Uddin Ahmed Contract Price: Tk 362,460	075	Approach work, final site cleanup, and channel clearing are in progress on the 6.8 m culvert. The foundation slab and portions of the abutments and piers of the 4.5 m box were completed this month. The size of the latter was increased to match the railroad bridge just upstream. One running bill has been processed.
34	ZRMI/20/84-85	Box Culverts, 6 nos. (1.5 m) Contractor: Mr. Abdul Quayum Contract Price: Tk 362,460	050	The contractor is completing the last of these six culverts with excellent results. Final cleanup and approach work is in progress on the other five culverts. One running bill has been processed.

## Exhibit III - CONSTRUCTION SUPERVISION PROJECTS - SYLHET

Sheet 6 of 7

Serial Number	Contract Identification	Description Of Work Order	Percent Complete	Current Comments
<u>Dhakadakshin - Beanibazar Road</u>				
<u>1982 - 1983 Projects</u>				
35	ZAMI/24/82-83	Earthwork and Bituminous pavement (0.75 mile) (Revised) Contractor: Mr. Khalilur Rahman Contract Price: Tk 1,105,408	058	Progress during this reporting period limited to stockpiling and breaking of materials. Only 60 m remain for completion. Three running bills have been processed.
36	ZAMI/25/82-83	RCC Pipe Culverts, 6 nos. (Revised) Contractor: Mr. Habibur Rahman Contract Price: Tk 65,732	100	Final bill processed.
<u>1983 - 1984 Projects</u>				
37	ZAMI/15/83-84	Box Culvert (Noakhal) (Revised) Contractor: Mr. Salaul Ahmed Contract Price: Tk 221,025	100	Final bill processed for the approved portion of the work.
38	ZAMI/16/83-84	Earthwork and Bituminous pavement, (2.45 km) (Revised) Contractor: Mr. Khalilur Rahman Contract Price: Tk 1,981,042	090	In addition to heavy rains during the month, high moisture content of placed fill, and the lack of sufficient acceptable material for completion of the sub-grade have hindered progress on this project. The contractor lacks less than a total of 300 m of pavement to complete the project. Four running bills have been processed.
<u>1984 - 1985 Projects</u>				
39	ZAMI/21/84-85	Box Culvert (5.2 m) and Retaining wall (Dhakadakshin) Contractor: Contract Price: Tk 299,096	100	Final bill processed.
40	ZAMI/22/84-85	Box Culvert (26.5 m) (Lula River) (Revised) Contractor: Contract Price: Tk 540,561	015	Access to this project site is only by a circuitous route over very poorly maintained R. & H. roads. However, the contractor is engaged in excavating the foundation, building the diversion road, and mobilizing the necessary materials. No running bills have been processed.
41	ZAMI/23/84-85	Bridge (86 m) (Radhajuri) Contractor: Contract Price:	035	Construction had been progressing at a very reasonable rate, and the quality of work accomplished was very good. However, organic material was encountered during excavation for the mid-channel pier. The material extended to a depth of several meters, and the contractor could not remove it. A new superstructure is being designed to span the 20-m gap left by the elimination of the unstable pier location.

## Exhibit III - CONSTRUCTION SUPERVISION PROJECTS - SYLHET

Sheet 7 of 7

Serial Number	Contract Identification	Description Of Work Order	Percent Complete	Current Comments
<u>Nabiganj - Baniyachung Road</u>				
<u>1983 - 1984 Projects</u>				
42	LAMI/17/83-84	Box Culvert (14.76 m) (Nabiganj)	100	Final bill processed. Contractor advised that any further settlement of approaches must be rectified by him during the guarantee period.
<u>1984 - 1985 Projects</u>				
43	LAMI/24/84-85	Box Culvert (10.1 m) (Barrakhal) Contractor: H/S Sonawar and Co. Contract Price: Tk 429,128	070	Construction work on this structure has progressed well, and with good quality workmanship. All piers and abutments are complete, and the contractor was placing shuttering in preparation for the casting of the top slab. One running bill has been processed.
44	LAMI/25/84-85	Box Culverts, 2 nos (5.2 m & 1.5 m) Contractor: H/S Sonawar and Co. Contract Price: Tk 822,546	030	During this reporting period, it was decided to revise this contract, changing both the size and the location of one of them, and the size only of the other. It was found that the ARMO pipe culvert located near Izurkhal could have headwalls added and thus eliminate the necessity of replacement by the 1.5 m culvert as planned. A 3.6 m box culvert could then be built at Izurkhal, and the 5.2 m box to be located at Km 6.5 could be reduced in size to a 3.6 m box culvert. This would change the scope of the contract, but with little or no change in cost. The contractor had been reminded of the urgency for construction of these structures, and had completed the excavation for the foundations of the 3 nos. 3.6 m culverts and had cast the C.C. slabs by the end of this reporting period. No running bills have been processed.

E X H I T I T    I V  
=====

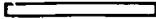
BAR CHARTS AND PROGRESS CURVES

SYLHET

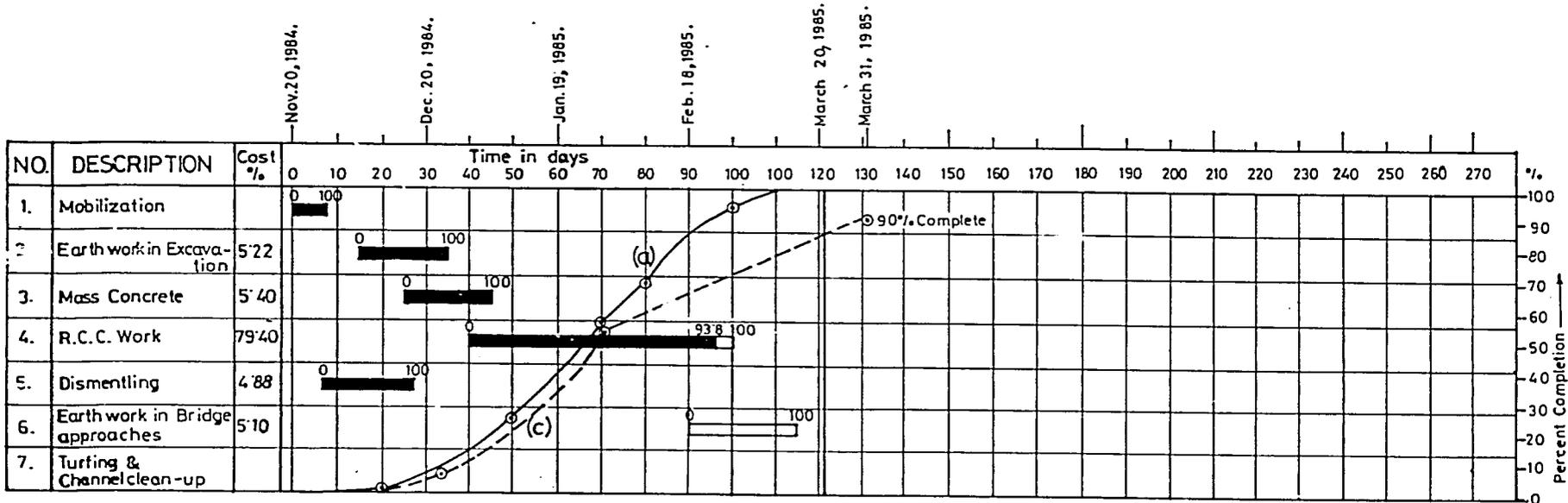
# SYLHET DISTRICT

Construction of 6 Nos R.C.C. Box Culvert Size 1'5m.x1'5m.  
on Fenchugonj - Gilachara Road (1984-'85)

Tender No. ZRMI-20/(84-'85)

- (a)  Schedule Progress
- (b)  Revised Schedule
- (c)  Actual Progress

Estimated Cost: Tk. 3,45,200.00  
 Contract Cost: Tk. 3,62,460.00  
 Scheduled Starting date: Nov. 20, 1984.  
 Actual Starting date: Nov. 21, 1984.  
 Scheduled Completion date: March. 21, 1985.  
 Revised Completion date:  
 Revised Cost: Tk.  
 Date of revision:

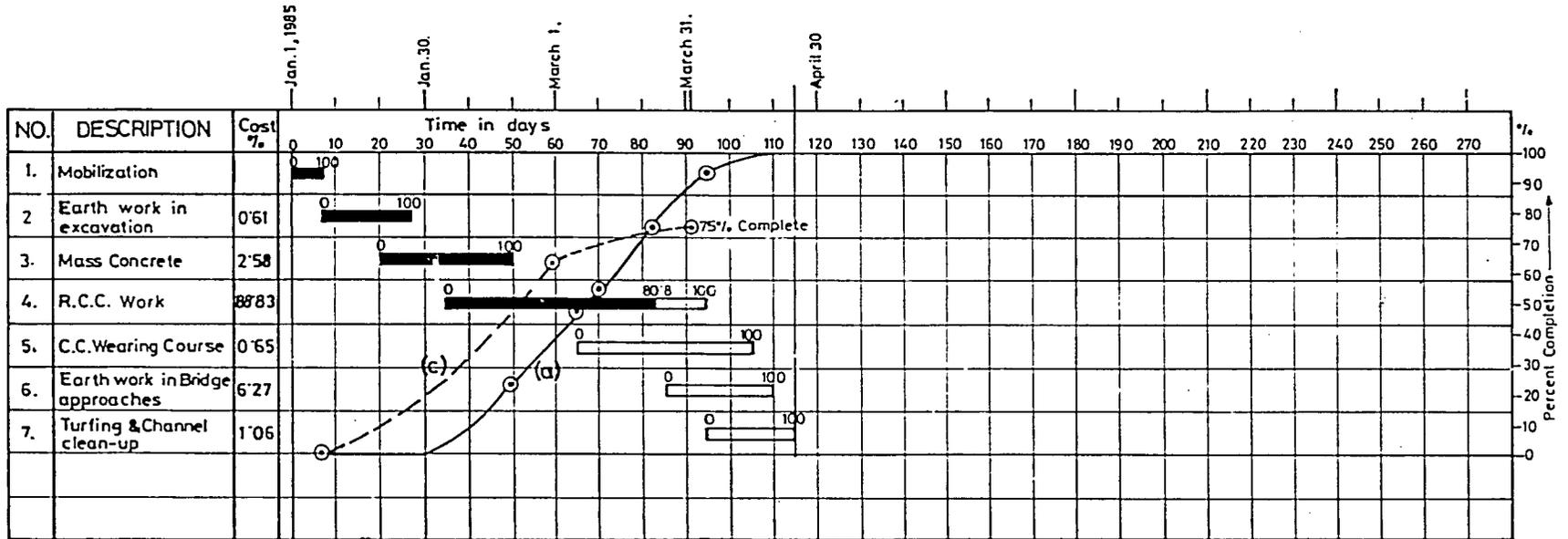


# SYLHET DISTRICT

**Construction of R.C.C. Box Culvert, Size 10'10m.X3'00m. at 7°20' & 7°40' km.  
(Atgram end) ATGRAM-ZAKIGONJ Road. (ZRMI-15A&C/1984-85)**

Estimated Cost: TK. 4,86,000'00  
 Contract Cost: TK. 5,57,782'00  
 Schedule Starting date: Jan.1, 1985  
 Actual Starting date: Jan. 5, 1985  
 Scheduled Completion date: April 28, 1985  
 Revised Completion date:  
 Revised Cost: TK.  
 Date of Revision:

- (a)  Schedule Progress
- (b)  Revised Schedule
- (c)  Actual Progress

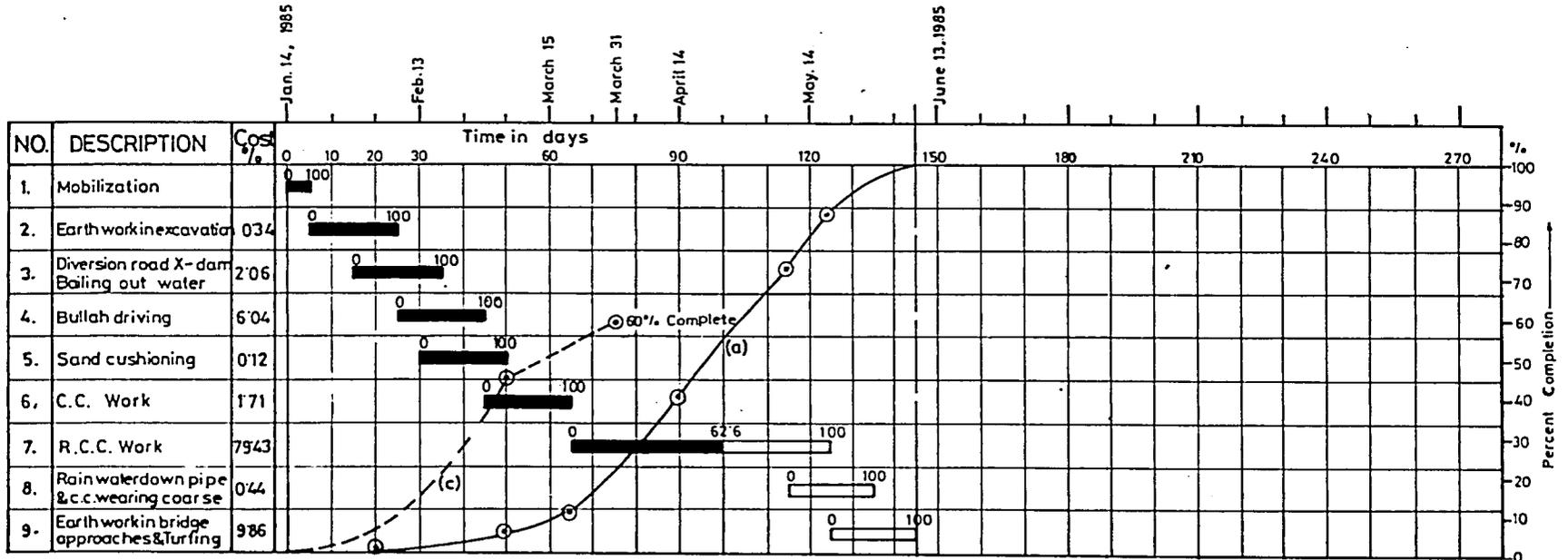


## SYLHET DISTRICT

**Construction of R.C.C. Box Bridge. Size 24'5m.X6'5m.  
at 7'3km. on ATGRAM-ZAKIGONJ ROAD(ZRMI-13B/1984-85)**

Estimated Cost: TK. 8,89,400'00  
 Contract Cost: TK. 10,22,810'00  
 Scheduled Starting date: Jan. 14, 1985  
 Actual Starting date: Jan. 20, 1985  
 Scheduled Completion date: June 5, 1985  
 Actual Completion date:  
 Revised Cost: TK.  
 Date of Revision:

- (a)  Schedule Progress
- (b)  Revised Schedule
- (c)  Actual Progress



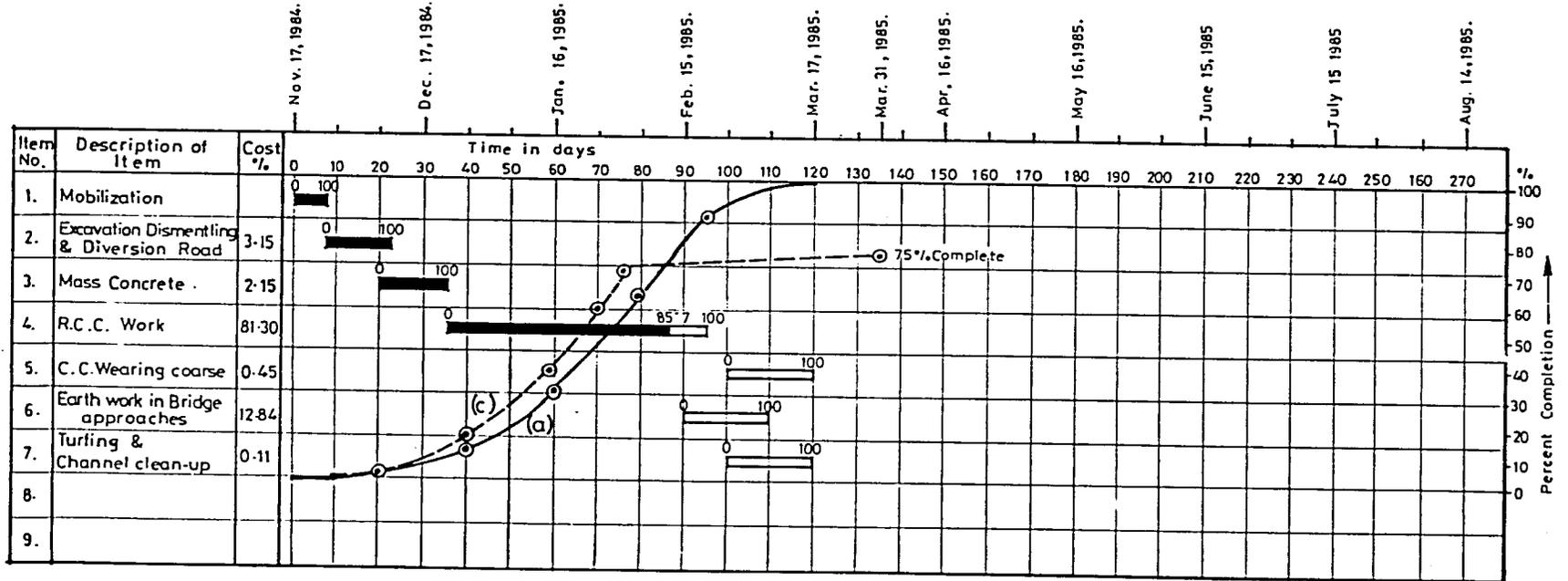
# SYLHET DISTRICT

## Construction of R.C.C. Box Culvert, Size 6.85mx4.50m on Fenchugonj-Gilachara Road. (ZRMI-19/84-85)

- (a) ———— Schedule Progress
- (b) - - - - Revised Schedule
- (c) - - - - Actual Progress

Estimated Cost: Tk. 3,27,700-00  
 Contract Cost: Tk 3,20,457-00  
 Scheduled Starting date: Nov. 17, 1984.  
 Actual Starting date: Nov. 20, 1984.  
 Scheduled Completion date: Mar. 18, 1985.  
 Revised Completion date:  
 Revised Cost: Tk.  
 Date of Revision:

- 72 -

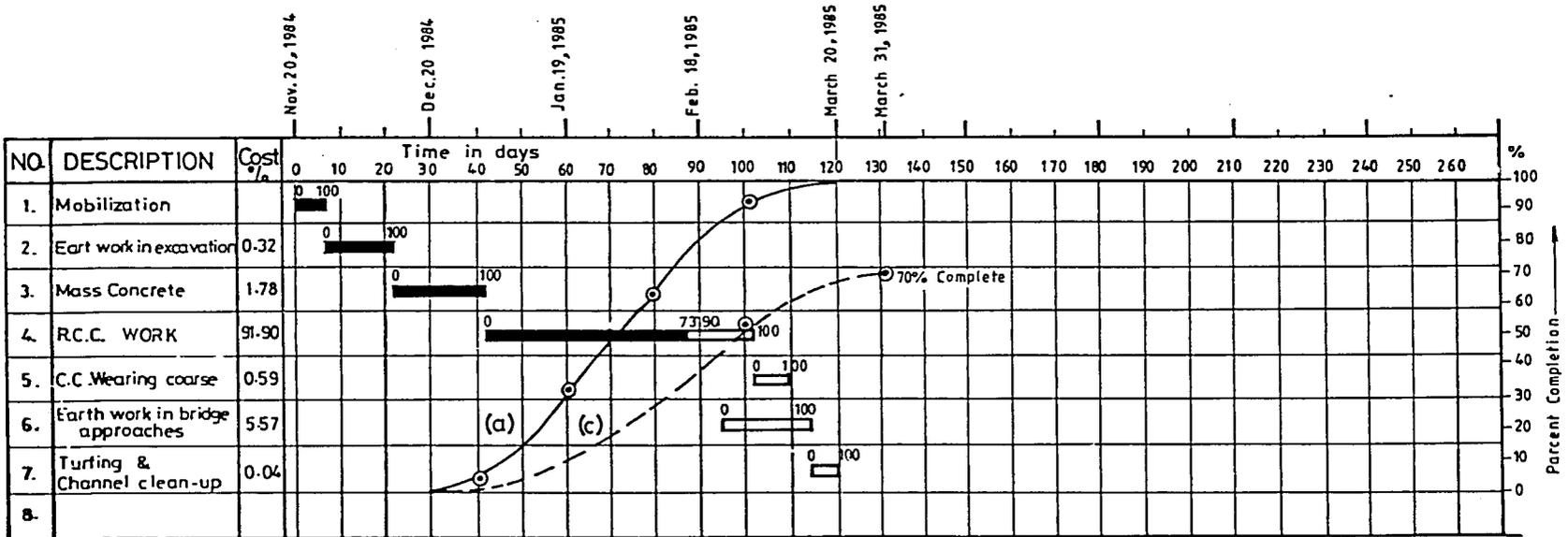


# SYLHET DISTRICT

## Construction of R.C.C Box Culvert Size 10.00m x 5.50m on NABIGONJ - BANIACHONG ROAD, AT BARAKHAL. (ZRMI-T/24/1984-85)

- (a) — Schedule Progress
- (b) — Revised Schedule
- (c) — Actual Progress

Estimated Cost: Tk. 4,09,200-00  
 Contract Cost: Tk. 4,29,128-00  
 Scheduled Starting date: Nov. 20, 1984  
 Actual Starting date: Jan. 07, 1985  
 Scheduled Completion date: Mar. 21, 1985  
 Actual Completion date:  
 Revised Cost: Tk.  
 Date of Revision:



# SYLHET DISTRICT

Construction of 6 Nos. 2'-0" dia R.C.C. Pipe Culvert on  
Fenchugonj-Gilachara Road. Tender No. ZRMI 23/(82-83).

- (a). ——— Schedule Progress.
- (b). ——— Revised Schedule.
- (c). ——— Actual Progress.

Estimated Cost: TK. 87,820.00  
 Contract Cost: TK. 96,602.00  
 Scheduled Starting date: Dec. 22, 1984.  
 Actual Starting date: Dec. 24, 1984.  
 Scheduled Completion date: March 24, 1985.  
 Revised Completion date:  
 Revised Cost: TK.  
 Date of revision:

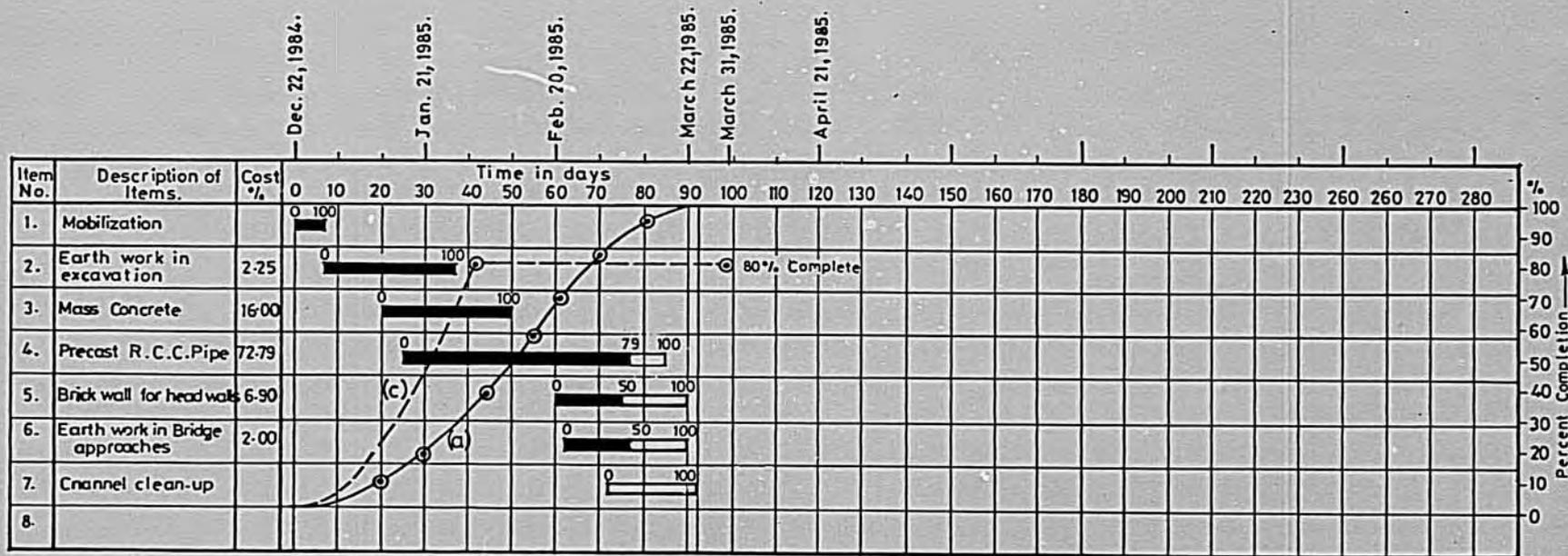


EXHIBIT V.  
RANGPUR DISTRICT

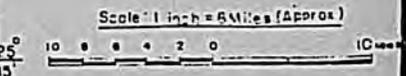
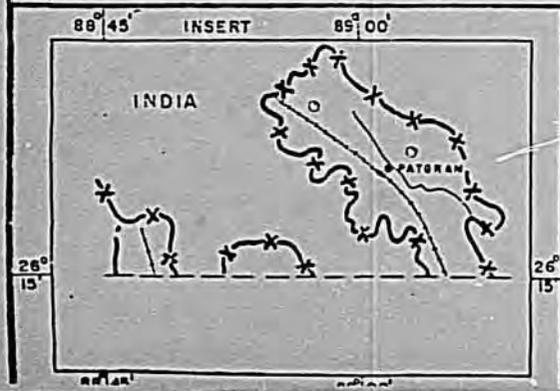
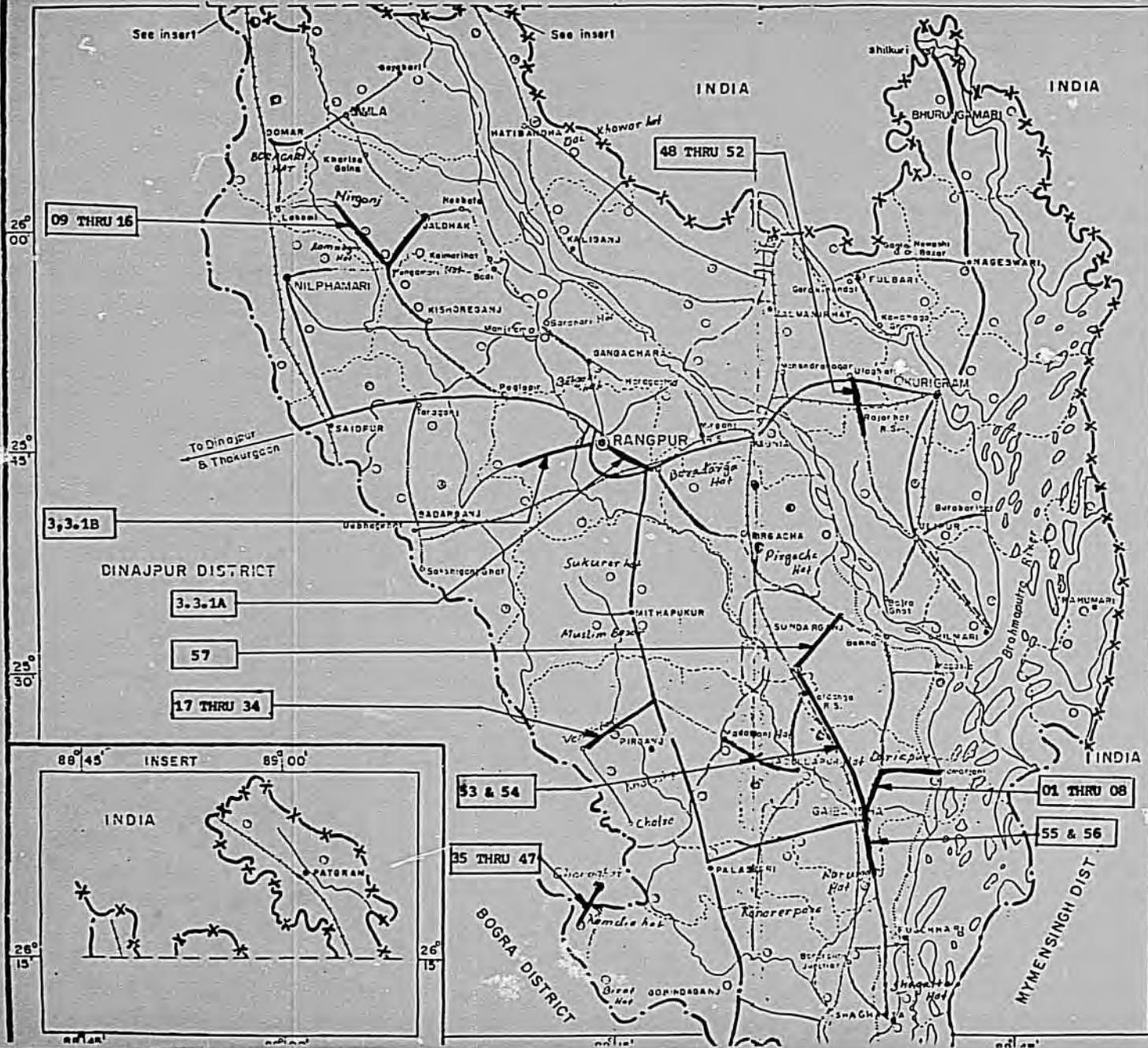


**LEGEND:**  
**MAINTENANCE**

- 3.3.1A RANGPUR-MAHIGANJ ROAD
- 3.3.1B RANGPUR-BADARGANJ ROAD

**CONSTRUCTIONS**

- 01 THRU 08 GAIBANDHA-KAMARJANI ROAD
- 09 THRU 16 MIRGANJ-JALDHAKA ROAD
- 17 THRU 34 CHATRA-KHALASHPIR-BHENDABARI ROAD
- 35 THRU 47 KAMDIA-GHORAGHAT ROAD
- 48 THRU 52 RAJARHAT-ULLAGHATA ROAD
- 53 & 54 GAIBANDHA-NALDANGA ROAD
- 55 & 56 GAIBANDHA-SAGHATA ROAD
- 57 BAHANDANGA-SUNDARGANJ ROAD



Serial Number	Contract Identification	Description Of Work Order	Percent Complete	Current Comments
<u>Gaibandha - Kamarjani Road.</u>				
<u>1982 - 1983 Projects</u>				
01		H&B	100	All work completed April 1984. Maintenance still required for eroded earth shoulders.
<u>1983 - 1984 Projects</u>				
02	Group A	Bituminous pavement Contractor: Mr. Shamsul Aziz Contract Price: Tk 565,666	040	W&M had been completed in October 1984, but then there was no more work until 20 March 1985. A total of 300 lin. ft of bituminous pavement had been completed as of the end of this reporting period.
03	Group B	Bituminous pavement Contractor: Mr. Shamsul Aziz Contract Price: Tk 585,866	033	No work done during this reporting period.
04	Group C	Bituminous pavement Contractor: Mr. Shahjahan Khan Atou Contract Price: Tk 585,667	040	A total of 1300 lin. ft of bituminous carpeting had been completed by the end of this reporting period, but the quality of the work was sub-standard. The lack of a roller on this road is a big problem, and the result is little or no compaction. The S&L was at the job site, but he would not give any instructions to change defective procedures.
<u>1984 - 1985 Projects</u>				
05	Group 1a	Bituminous pavement Contractor: Mr. P.N. Nabi Lalu Contract Price: Tk 460,000	005	Work during this reporting period confined to khoa breaking. A total of 500 lin. ft W&M completed to date, but the work is sub-standard for lack of compaction.
06	Group 1B	Bituminous pavement Contractor: Mr. Tapan Kuman Barker Contract Price: Tk 445,840	010	Brick breaking for khoa and khoa spreading for W&M was underway during this reporting period. Some 500 lin. ft of shoulder improvement work was accomplished, but compactive effort for the earthwork was not adequate.
07	C - 4	RCC bridge, 10 ft. (Gariapur) Contractor: Contract Price: Tk	045	After correcting some defective work, the contractor resumed productive work. As of the end of this reporting period, the abutments and wing-walls were about 5 ft high.
08	B - 6	RCC Bridge, 20.4 m (Kumarpara)	---	No work order issued to date.

Serial Number	Contract Identification	Description Of Work Order	Percent Complete	Current Comments
<u>Mirganj - Jaladhaka Road</u>				
<u>1982 - 1983 Projects</u>				
09	Groups A, B, & C	Bituminous pavement	100	Completed May 1984. Maintenance work should be started. Final Payment processed.
10	Group D	Bituminous pavement Contractor: Mr. Ismail Contract Price: Tk 292,168	100	Final Payment processed.
11	Group E	Bituminous pavement, 2500 ft Contractor: Mr. Lotus. Contract Price:	030	WBM complete for 1500 lin. ft. and kha spread for the balance of 1400 lin. ft. This project formerly Group D of 1983-1984 projects.
<u>1983 - 1984 Projects</u>				
12	Group A	Bituminous pavement Contractor: M/S Shahed and Co. Contract Price: Tk 759,730	100	Second R.A. Bill processed.
13	Groups B, C-1, & C-2	Bituminous pavement Contractor: Contract Cost: Tk	100	One Running Payment processed.
11	Group D	Bituminous pavement	—	Transferred to 1-82 - 1983 Projects as Group E
<u>1984 - 1985 Projects</u>				
14	Group 3-A	Bituminous pavement, 2,200 ft Contractor: Mr. Yamulo Ali Contract Price: Tk 566,426.02	010	WBM complete for 1700 lin. ft. but of poor quality. Organic material was found mixed in the first 500 ft of WBM; this should have been set right before proceeding further. Shoulder improvement work complete, but again of low quality for lack of proper compaction.
15	Group 3-B	Bituminous pavement, 2,200 ft Contractor: Mr. Shamsul Haque Contract Price: Tk 633,600.36	015	WBM complete for 1500 lin. ft. Shoulder improvement work is complete, but needs to be corrected.
16	Group 3-C	Bituminous pavement Contractor: Mr. Atiar Rahman Contract Price: Tk 615,472.35	030	WBM work is complete, but several spots of poor compaction must be corrected.

Serial Number	Contract Identification	Description Of Work Order	Percent Complete	Current Comments
<u>Barodarga - Bhendabari Road</u>				
<u>1982 - 1983 Projects</u>				
17	Groups A & B	Bituminous pavement	100	Shoulder dressing and correction of some defective seal coating must be done before Final Payment.
18	Groups C, D-1, & D-2	bituminous pavement	100	Final Payment processed.
19	Group C-2	Bituminous pavement Contractor: Mr. Mcmen Bookurs Contract Price: Tk 141,657	100	Final Payment processed.
<u>1983 - 1984 Projects</u>				
20	Group A	Bituminous pavement, 3,150 ft Contractor: Mr. Kazi Md. Ish Contract Price: Tk 732,253	093	WBH complete for 2550 lin. ft and pavement complete for 2850 lin. ft. Khoa was being collected to complete the balance of this job.
21	Group B	Bituminous pavement Contractor: M/S Eastern Boring Construction Contract Price: Tk 728,636	100	Final Payment processed.
22	Group C	bituminous pavement Contractor: Mr. Mukleshur Rahman Contract Price: Tk 670,673	100	Final Payment processed.
23	Group D	Bituminous pavement Contractor: Mr. Jahirul Haque Contract Price: Tk 676,548	100	Final Payment processed.
24	Group E	bituminous pavement, 2,420 ft Contractor: M/S Raihan Construction Contract Price: Tk 666,308	060	WBH complete for 2250 lin. ft and pavement complete for 1600 lin. ft. Progress is very slow and quality of work is poor. Surface is undulating and seal coat is not up to specifications.
25	Group F	Bituminous pavement, 2,696 ft Contractor: M/S Rakaria Khan Contract Price: Tk	040	WBH complete for 2300 lin. ft and pavement complete for 700 lin. ft. The progress of this project suffers from frequent suspensions of the work.
<u>1984 - 1985 Projects</u>				
26	Group 2(a)A	Bituminous pavement, 1,650 ft Contractor: M/S National Construction Contract Price: Tk 610,196.13	054	WBH is complete for the entire reach of this project. Shoulder improvement work complete for 1150 lin. ft, but compaction has been inadequate. work is still behind schedule.
27	Group 2(a)B	Bituminous pavement, 1,650 ft Contractor: Mr. Ekramul Haque Contract Price: Tk 621,261.87	031	WBH complete for 900 lin. ft, and shoulder improvement work is complete for 1000 lin. ft. Compaction is inadequate on shoulder work.

Serial Number	Contract Identification	Description Of Work Order	Percent Complete	Current Comments
<u>Barodarga - Bhendabari Road (Cont.)</u>				
<u>1984 - 1985 Projects (Cont.)</u>				
26	Group 2(a)C	Bituminous pavement, 1,650 ft Contractor: Mr. Moklesur Rahman Contract Price: Tk 594,169	10	<u>As of the end of this reporting period, contractor has completed only 300 lin. ft khoa spreading for first layer, and 500 lin. ft of shoulder improvement. Contractor should be told to speed up immediately.</u>
29	Group 2(b)A	Bituminous pavement, 1,556 ft Contractor: Mr. Shamsul Haque Contract Price: Tk 627,534.82	11	<u>Some construction materials have been collected at the site, but work is limited to 500 lin. ft khoa spread for first layer of WBM, and 900 lin. ft shoulder improvement. Progress is far behind schedule.</u>
30	Group 2(b)B	Bituminous pavement Contractor: M/S Eastern Builders Contract Price: Tk 612,062.17	24	<u>Progress to date is limited to 1000 lin. ft of khoa spread for the first layer of WBM. Progress also far behind schedule.</u>
31	C - 1	RCC Box Culvert, 8 ft (Gurjipara) Contractor: Mr. A. Hamid Contract Price: Tk 110,552	03	<u>With the completion of the demolition of the existing structure, this contractor has done little, or no, work since 07 February 1985. The scheduled completion date is 10 February 1985.</u>
32	C - 2	RCC Slab, 13 ft (Gurjipara) Contractor: Mr. A. Hamid Contract Price: Tk 66,759	68	<u>Casting of the slab was completed in mid-February. The downstream depressed area has been filled with brickbats.</u>
33	C - 3	Pipe culvert, 50 in. dia (Mile 2) Contractor: Mr. Rezaul Hasan Contract Price: Tk 36,092	46	<u>Concrete pipe casting was complete at the job site, and placing them was in progress.</u>
34	C - 7	RCC Box Culvert, 10 ft (Mile 1) Contractor: Mr. Abdus Salam Contract Price: Tk 126,140	---	<u>Progress is limited to the accumulation of some brick chips at the site, and a few square ft of brick soling on the floor. There are no preparations for further work. Immediate punitive action against this contractor is recommended.</u>
34A	Group 2(b)C	Bituminous pavement Contractor: Mr. Alauddin Khan Contract Price: Tk 623,708.52	05	<u>Some brick chips have been accumulated at the site, but work progress is limited to 200 lin. ft first layer of khoa for WBM and 500 lin. ft. of shoulder improvement. The earthwork on the shoulders lacks compaction.</u>

Serial Number	Contract Identification	Description Of Work Orer	Percent Complete	Current Comments
<u>Kamia - Ghoraghat Road</u>				
<u>1962 - 1963 Projects</u>				
35	Groups A, C, & D	H&B	100	All work, including shoulder repair work is now complete. Final Payment processed.
36	Group B	H&B Contractor: Mr. Motlebur Rahman Contract Price: Tk 346,325	100	Final Payment under process.
<u>1963 - 1964 Projects</u>				
37	Group A	H&B Contractor: Mr. Amjad Ali Contract Price: Tk 533,500	053	All H&B work is complete, but 1300 lin. ft of shoulder improvement work remains to be done.
38	Groups B & C	H&B	098	All H&B and shoulder improvement work is complete. Construction on sand drains is in progress.
39	Group A	H&B, 3000 ft Contractor: Mr. Motlebur Rahman Contract Price: Tk 418,738	050	H&B work complete for 1450 lin. ft. Earth for shoulder improvement has been placed for entire reach of contract, but still requires the breaking of the clods and compaction.
<u>1964 - 1965 Projects</u>				
40	Group 4(b)A	Bituminous pavement Contractor: Mr. Mahbulo Elahi Contract Price: Tk 750,325	008	Progress to date is limited to 400 lin. ft W&M, and 900 lin. ft khoa spread for rolling. The shortage of a roller has been a real handicap on this job.
41	Group 4(b)B	Bituminous pavement Contractor: M/S Facma Enterprises Contract Price: Tk 750,375	010	Progress to date is limited to 1500 lin. ft W&M. This contractor also suffering for lack of a roller.
42	Group 4(b)C	Bituminous pavement Contractor: M/S United Enterprises Contract Price: Tk 748,417.50	010	Some 2000 lin. ft W&M material spread, but for lack of roller, it has not been compacted.
43	Group 4(b)D	Bituminous pavement Contractor: Mr. Abdullah Al Mahmud Contract Price: Tk 750,375	005	Preparation of brick chips is almost complete; khoa has been spread over 300 lin. ft. but has not yet been compacted.

Serial Number	Contract Identification	Description Of work Order	Percent Complete	Current Comments
<u>Kamdia - Ghoraghat Road (Cont.)</u>				
<u>1984 - 1985 Projects (Cont.)</u>				
44	Group 4 (a)A	Bituminous pavement Contractor: Mr. Kasim Uddin Sarker Contract Price: Tk 663,165.50	04	Progress limited to 200 lin. ft of brick soling. Very poor progress.
45	Group 4 (a)B	Bituminous pavement Contractor: Mr. A.K.M. Chowkat Ali Contract Price: Tk 663,167.05	10	Progress limited to 1200 lin. ft of brick soling. Khoa could not be compacted because of the lack of a roller.
46	Group 4 (a)C	Bituminous pavement Contractor: Mr. Amjad Ali Contract Price: Tk 663,167.05	12	Progress limited to 1500 lin. ft of brick soling, and khoa spread over 1400 lin. ft, but not compacted due to lack of a roller.
<u>1982 - 1983 Projects (Cont.)</u>				
47		Tree afforestation Contractor: Mr. Salaiman Ahmed Contract Price: Tk 16,854	---	No progress to report.
<u>Rajarhat - Ullaghata Road</u>				
<u>1982 - 1983 Projects</u>				
48	Groups A & D	HBB	98	Work 95 percent complete in Group A and 100 percent complete in Group D
49	Groups B & C	HBB	---	These projects have been canceled, and the funds transferred to the Mircanj - Jaldhaka Road.
<u>1983 - 1984 Projects</u>				
<u>1984 - 1985 Projects</u>				
50	B - 5	RCC Bridge, 24.4 m (Deulia Beel)	---	No progress to report.

Serial Number	Contract Identification	Description Of work Order	Percent Complete	Current Comments
<u>Rajarhat - Ullaghata Road (Cont.)</u>				
<u>1984 - 1985 Projects (Cont.)</u>				
51	B - 6	RCC Bridge, 14.2 m (Baddayar Bazar)	==	No progress to report.
52	B - 7	RCC Bridge, 14.2 m (Pangahat)	==	No progress to report.
<u>Gaibandha - Naldanga Road</u>				
<u>1984 - 1985 Projects</u>				
53	d - 1	RCC bridge, 20 ft Contractor: Mr. Shamsul Huq Contract Price: Tk 251,300	10	Progress to date consists of a small amount of foundation brick flat soling and C.C. for the abutments and wing walls. This contract was scheduled for completion on 10 February 1985.
54	B - 3	RCC bridge, 20 ft (Zhol-hati) Contractor: Mr. Anawurul Azim Contract Price: Tk 317,724	18	As of the end of this reporting period, abutment work had reached the level of the deck slab bed block. This contractor must be encouraged to make every effort to accelerate the rate of progress.
<u>Gaibandha - Saghata Road</u>				
<u>1984 - 1985 Projects</u>				
55	B - 2	RCC Bridge, 15 ft Contractor: Mr. Ranjit Bakshi Contract Price: Tk 202,686	57	As of the end of this reporting period, the abutments have reached the level of the deck slab bed block. There has been a great improvement in the progress rate during this month.

Exhibit VI - CONSTRUCTION SUPERVISION PROJECTS - RANGPUR

Sheet 8 of 8

Serial Number	Contract Identification	Description Of work Order	Percent Complete	Current Comments
<u>Chaperhat - Kaliganj Road</u>				
<u>1984 - 1985 Projects</u>				
56	C - 5	RCC Box Culvert, 10 ft Contractor: Mr. Mofazzal Hossain Contract Price: Tk 140,000	15	<u>Some progress in the excavation of the foundation and the casting of the floor slab.</u>
<u>Bamandanga - Sunderganj Road</u>				
<u>1984 - 1985 Projects</u>				
57	C - 6	RCC Box Culvert, 10 ft (Saitontola) Contractor: Mr. A.K.M. Kashem Contract Price: Tk 146,000	19	<u>Progress to date is limited to the casting of the floor slab. Scheduled completion date for this project was 10 February 1985.</u>

EXHIBIT VII

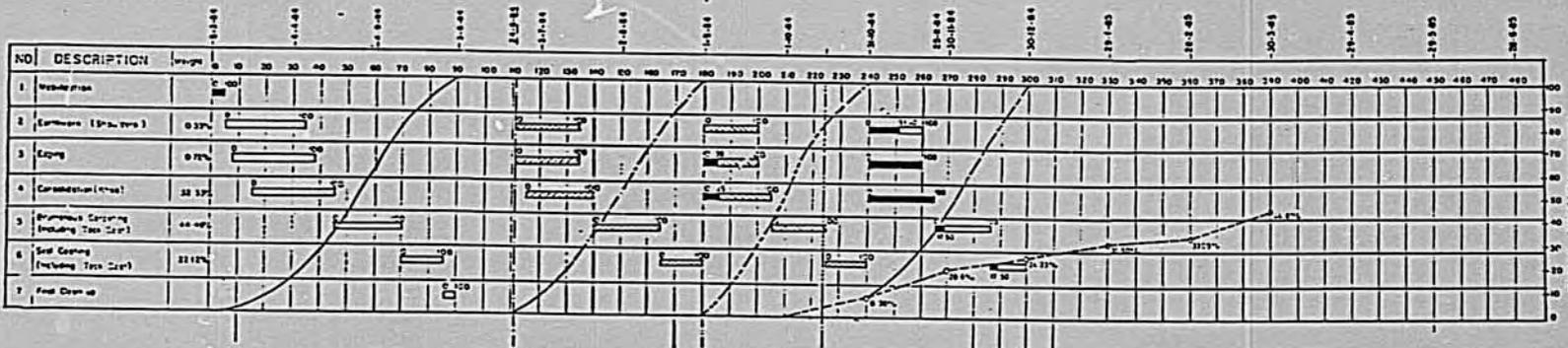
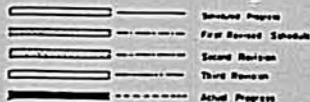
=====

BAR CHARTS AND PROGRESS CURVES

RANGPUR

**ZILA ROADS MAINTENANCE AND IMPROVEMENT PROJECT**  
**RANGPUR DISTRICT**  
**IMPROVEMENT OF GAIBANDHA KAMARJAN ROAD 083-84**  
**KHOA CONSOLIDATION AND BITUMINOUS CARPETING**  
**ON EXISTING H.B.B**

Estimated Cost: Tk. 1690000  
 Contract Cost: Tk. 1725596  
 Scheduled Starting Date: March 5, 1984  
 Actual Starting Date: —  
 Scheduled Completion Date: June 5, 1984  
 First Revised Completion Date: July 31, 1984  
 Second Revised Completion Date: October 31, 1984  
 Third Revised Completion Date: December 31, 1984  
 Dates of Revision: June 24, Sept. 1st,  
 Total Length: 9180 feet.

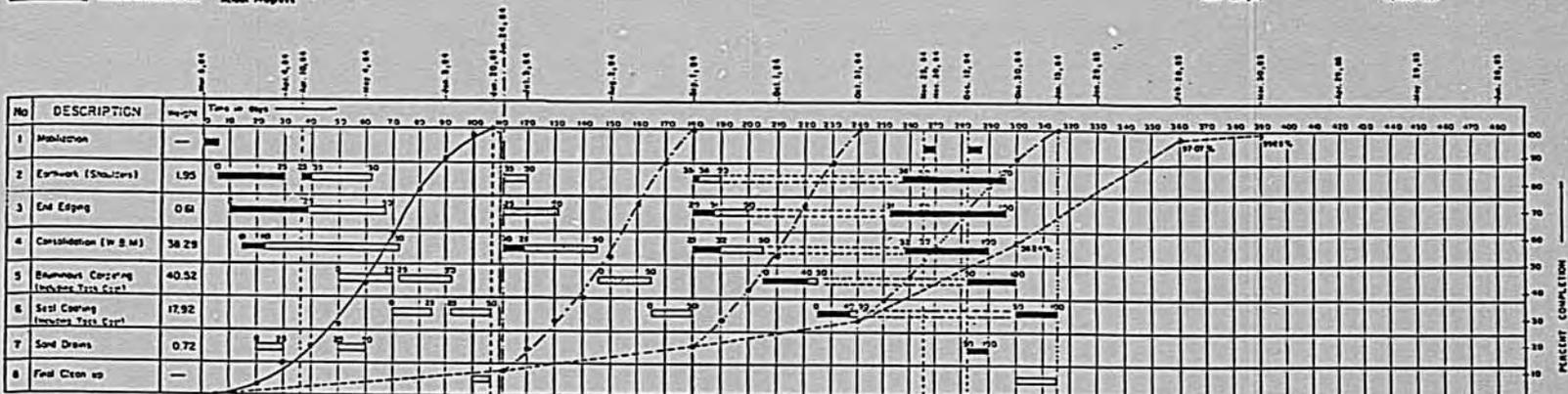


37

**ZILA ROADS MAINTENANCE AND IMPROVEMENT PROJECT  
RANGPUR DISTRICT  
IMPROVEMENT OF MIRGONJ-JOLDHAKA ROAD 1983-1984  
BITUMINOUS CARPETING  
REVISED PROGRESS CHART**

Estimated Cost: TL 19,37,235  
 Contracted Cost: TL 18,42,450  
 Scheduled Starting Date: See Para (1)  
 Actual Starting Date: See Para (2)  
 Scheduled Completion Date: See Para (3)  
 First Revised Completion Date: October 31, 1984  
 Second Revised Completion Date: December 31, 1984  
 Third Revised Completion Date: June 24, Sep. 1st, Oct. 15, 1984  
 Gross or Netton: 6,400 feet

Original Scheduled Progress (Three Groups)  
 First Revised Schedule  
 Second Revision  
 Third Revision (Four Groups)  
 Actual Progress

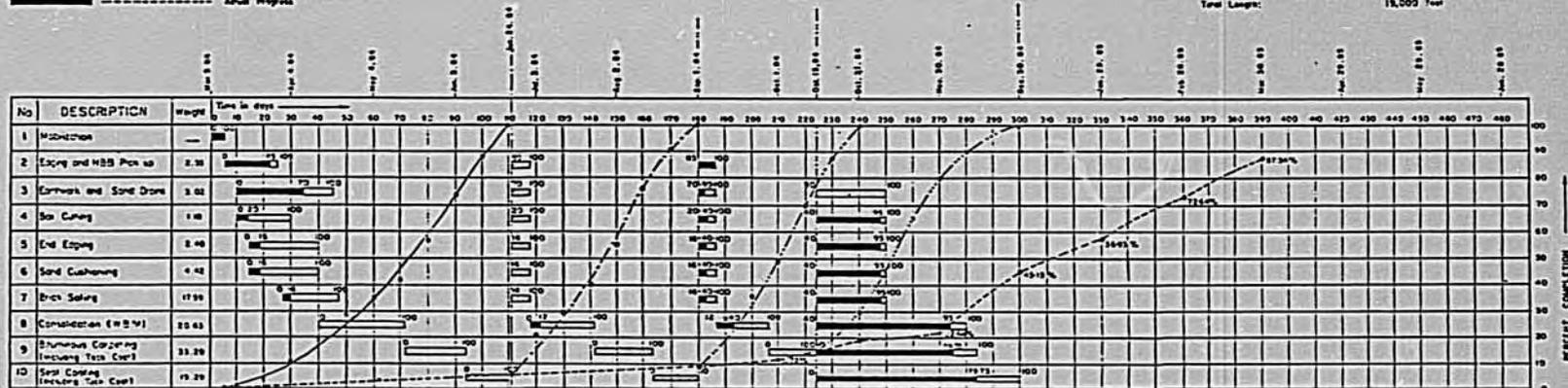


NOTES: (1) Group C-2: March 3, 1984; Group B: April 7, 1984; Group A: December 12, 1984; Group C-1: November 23, 1984  
 (2) Group C-2: March 10, 1984; Group B: March 10, 1984; Group A: December 12, 1984; Group C-1: November 23, 1984  
 (3) Group C-2: June 5, 1984; Group B: June 20, 1984; Group A: January 13, 1985; Group C-1: December 31, 1984  
 (4) Work Order for Group B cancelled by the I.P. Group D will no longer be part of this scheme for 1983-84

25

**ZILA ROADS MAINTENANCE AND IMPROVEMENT PROJECT**  
**RANGPUR DISTRICT**  
**IMPROVEMENT OF BARODARGA-BHENDABARI ROAD 1983-1984**  
**BITUMINOUS CARPETING**  
**REVISED PROGRESS CHART**

Estimated Cost: Tk. 47,43,833  
 Original Contract Cost: Tk. 48,22,290  
 Revised Contract Cost: Tk. 45,97,386  
 Scheduled Starting Date: March 5, 1984  
 Actual Starting Date: March 18, 1984  
 Scheduled Completion Date: June 3, 1984  
 First Revised Completion Date: August 31, 1984  
 Second Revised Completion Date: October 31, 1984  
 Third Revised Completion Date: December 31, 1984  
 Date of Report: June 24, 1984  
 Total Length: 19,000 Feet

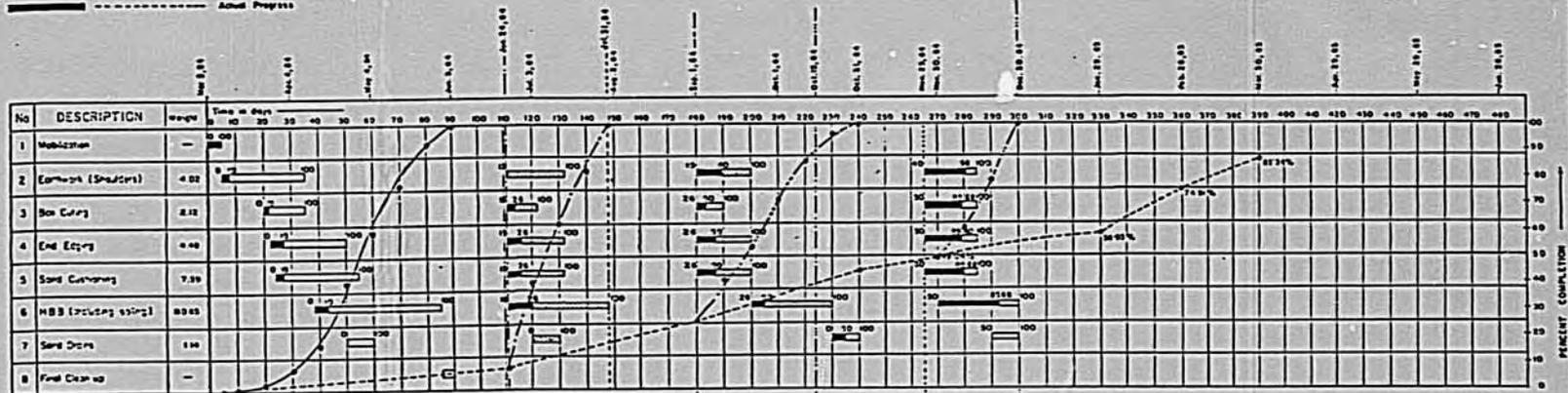


29

**ZILA ROADS MAINTENANCE AND IMPROVEMENT PROJECT**  
**RANGPUR DISTRICT**  
**IMPROVEMENT OF KAMDIA-GHORAGHAT ROAD 1983-1984**  
**H.B.B. PAVEMENT**  
**REVISED PROGRESS CHART**

Revised Estimated Cost: Tk. 16,34,137  
 Total Contracted Cost: Tk. 16,23,117  
 Scheduled Starting Date: See Para (1)  
 Actual Starting Date: See Para (2)  
 Scheduled Completion Date: July 31, 1984  
 First Revised Completion Date: October 31, 1984  
 Second Revised Completion Date: December 31, 1984  
 Third Revised Completion Date: June 24, Sept. 1st, Oct. 13, 1984  
 Date of Revision: See Para (3)  
 Total Length: 11,000 feet

Original Schedule Progress  
 First Revised Schedule  
 Second Revision  
 Third Revision  
 Actual Progress



NOTES: (1) Group B and C: March 3, 1984  
 Group A: Nov. 23, 1984  
 Group D: Dec. 16, 1984

(2) Group B and C: March 10, 1984  
 Group A: Dec. 4, 1984  
 Group D: Dec. 16, 1984

(3) Group B and C: June 3, 1984  
 Group A: Dec. 31, 1984  
 Group D: Dec. 31, 1984

of

## RANGPUR DISTRICT SCHEMES 1984-1985 ROADS CONSTRUCTION

Estimated Cost: Tk. 1,02,85,000.00

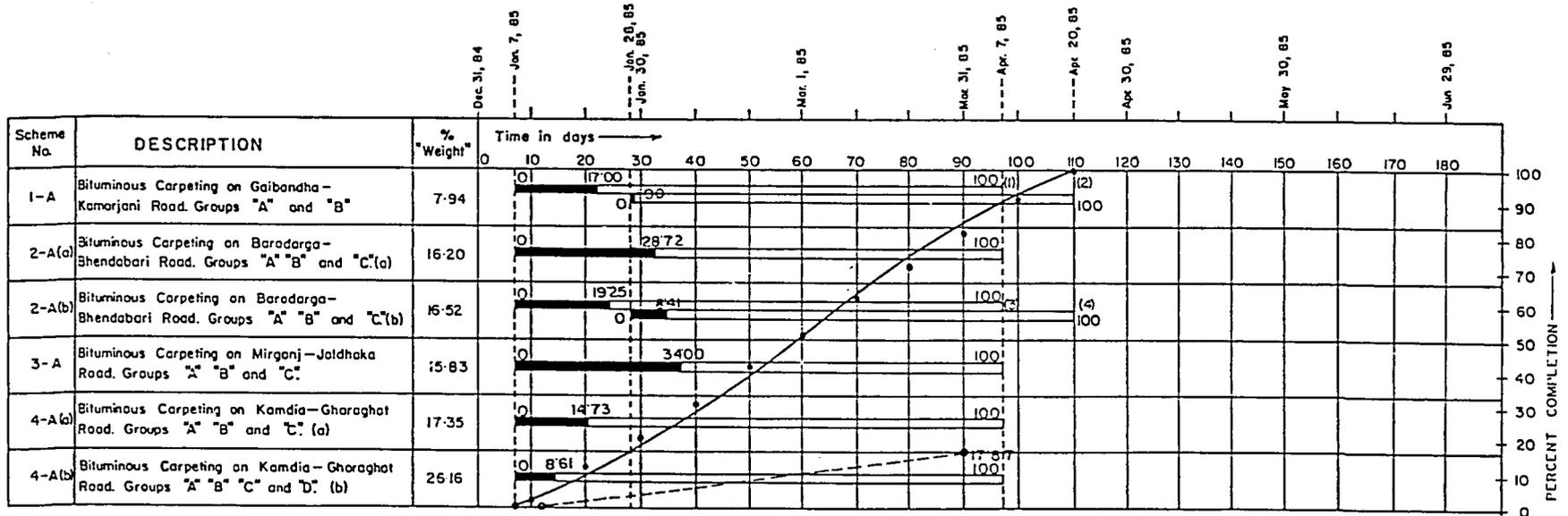
Contract Cost: Tk. 1,14,65,933.00

Scheduled Starting Dates: Jan. 7, and 28, 1985

Actual Starting Dates: Jan. 11, 85

Scheduled Completion Dates: Apr. 7 and 20, 1985

 Scheduled Progress  
 Actual Progress



Notes: (1) Group "A". (2) Group "B". (3) Group "A" and "B". (4) Group "C".

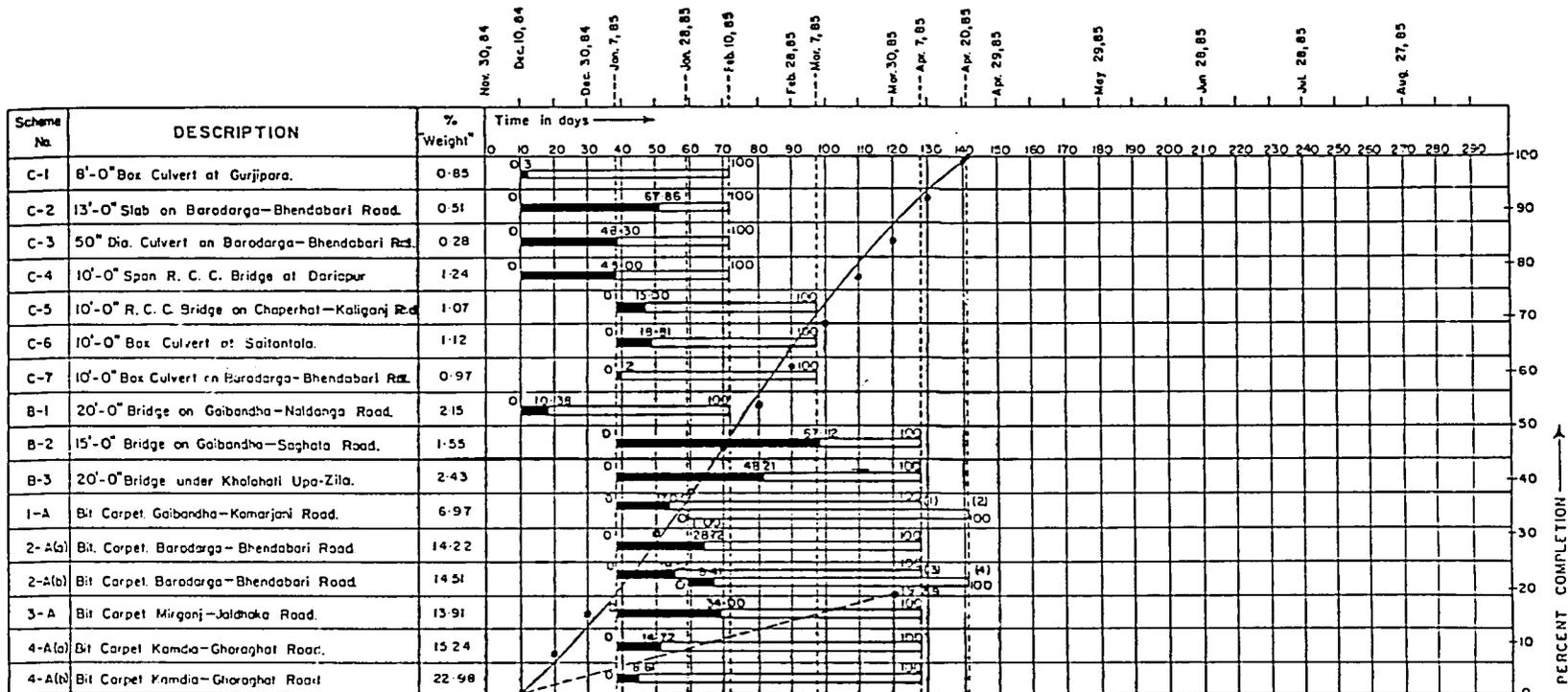
(5) Gaibandha-Kamarjani and Kamdia-Ghoraghat Roads have been subdivided into two Schemes each.



## RANGPUR DISTRICT SCHEMES 1984-1985 COMBINED PROGRESS CHART

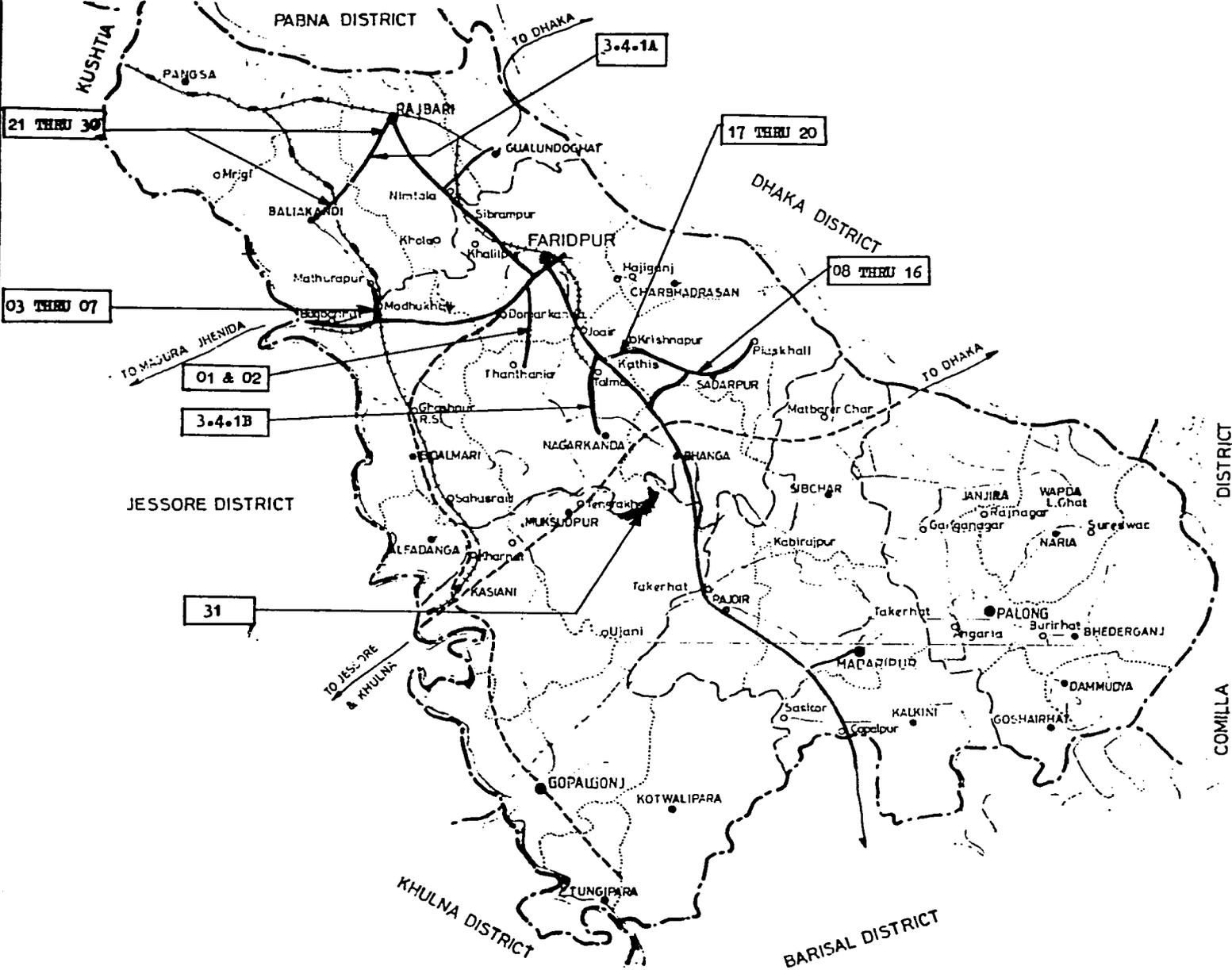
Estimated Cost: Tk. 1,18,75,000-00  
 Contract Cost: Tk. 1,30,55,086-00  
 Scheduled Starting Date: Dec. 10, 1984  
 Actual Starting Dates: Dec. 17, 1984  
 Scheduled Completion Dates: Apr. 20, 1985

———— Scheduled Progress  
 - - - - - Actual Progress



Notes:— (1) Group "A" (2) Group "B" (3) Group "A" and "B" (4) Group "C".

(5) Gaibandha-Kamarjani and Kamdia-Ghoraghat Roads have been subdivided into two Schemes each.



**LEGENDS**  
**MAINTENANCE**

3.4.1A. RAJBARI - BALLAKANDI ROAD

3.4.1B. TALMA - NAGARKANDA ROAD

**CONSTRUCTION**

01 & 02. BADARPUR - SALTHA ROAD

03 THRU 07. MADHUKHALI - BALLAKANDI ROAD

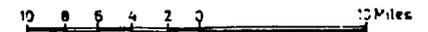
08 THRU 16. HATKRISENAPUR - PIJUKHALI ROAD

17 THRU 20. TALMA - HATKRISENAPUR ROAD

21 THRU 30. BALLAKANDI - RAJBARI ROAD

31. DIGNAGAR - MUKSUDPUR ROAD

Scale : 1 inch = 8 Miles



Serial Number	Contract Identification	Description Of Work Order	Percent Complete	Current Comments
<u>Badarpur - Saltha Road</u>				
<u>1982 - 1983 Projects</u>				
01		Bituminous pavement	100	Final payment processed
<u>1983 - 1984 Projects</u>				
02		Bituminous pavement	100	Final payment processed
<u>Madhukhali - Baliakandi Road</u>				
<u>1982 - 1983 Projects</u>				
03		Bituminous pavement	100	Final payment processed
<u>1983 - 1984 Projects</u>				
04	Groups E, F, G, H, & I	Bituminous pavement	100	Final payment processed
05	Group J	Bituminous pavement	100	Final payment in process.
<u>1984 - 1985 Projects</u>				
06	ZRMIP/01/84-85, Group K	Bituminous pavement, 5,326 ft Contractor: Mr. Atiar Rahman Contract Price: Tk 1,400,357.70	100	Complete, but final payment awaiting documentation.
07	ZRMIP/02/84-85, Group L	Bituminous pavement, 4,454 ft Contractor: M/s M.M. and Co. Contract Price: Tk 1,169,735.00	030	Final rolling of WBM completed this month. The roller was transferred to Group B, Baliakandi - Rajbari Road.
<u>Hatkrishnapur - Sadarpur - Pajkhali Road</u>				
<u>1983 - 1984 Projects</u>				
08	ZRMIP/01/83-84, Group A	HBB	100	Final payment being processed.
09	ZRMIP/10/83-84, Group D	HBB	100	Final payment being processed.
10	ZRMIP/13/83-84, Group E	HBB	100	Final payment being processed.

Serial Number	Contract Identification	Description Of work Order	Percent Complete	Current	Comments
<u>Hatkrishnapur - Sadarpur - Pajkhali Road (Cont.)</u>					
<u>1984 - 1985 Projects</u>					
11	ZMIP/10/84-85, Group B	HBB, 11,953 ft Contractor: Mr. A. Nasir Mia Contract Price: Tk 2,755,614	21	Road work was undertaken on 07 March 1985. There have been some	minor problems with the F.M. of sand.
12	ZMIP/11/84-85, Group C	HBB, 5,966.5 ft Contractor: Mir Akter Hossain and Co. Contract Price: Tk 1,400,354	56	Road work was undertaken on 07 March 1985. There have been some minor	problems with F.M. of sand. The brick being used is very poorly dimensioned; they must be hand-sorted by size.
13	ZMIP/25/84-85	RCC Bridge, 40 ft (Majumder) Contractor: Mr. Atiar Rahman Contract Price: Tk 587,860	02	This bridge has been staked and the site dewatered. Excavation began	on 15 March 1985.
14	ZMIP/26/84-85	RCC Bridge, 30 ft (Taltala) Contractor: Mr. K.M. Ibrahim Contract Price: Tk 624,015	—	This contract was cancelled by change order. Sadarpur Upazila has	decided to close this channel.
15	ZMIP/50/84-85	RCC Bridge, 30 ft (Matakchar) Contractor: M/S Mir Akhter Hossain and Ltd Contract Price: Tk 980,400	02	This bridge has been staked and the site dewatered. Excavation began	on 27 March 1985.
16	ZMIP/27/84-85	RCC Bridge, 30 ft (Khaigo) Contractor: M/S S.S. Construction Contract Price: Tk 564,604	15	Both footings have been poured, and the abutments are one-third complete.	

Serial Number	Contract Identification	Description Of Work Order	Percent Complete	Current Comments
<u>Talma - Hatkrishnapur Road</u>				
<u>1984 - 1985 Projects</u>				
17	ZRMIP/05/84-85, Group A	Bituminous Pavement, 5,280 ft Contractor: Mr. A. Rahim Mia Contract Price: Tk 1,838,114	44	The contractor on this project has problems with brick and sand quality. The project also suffers from poor management.
18	ZRMIP/06/84-85, Group B	Bituminous Pavement, 5,280 ft Contractor: M/S Mir Akter Hossain and Co. Contract Price: Tk 1,633,023.70	38	The W/M work is complete on this project. Now awaiting availability of a roller to start the paving work.
19	ZRMIP/07/84-85, Group C	Bituminous Pavement, 5,280 ft Contractor: Mr. Kh. Enayet Hossain Contract Price: Tk 1,645,590	48	The W/M work is complete on this project. Now awaiting availability of a roller to start the paving work.
20	ZRMIP/08/84-85, Group D	Bituminous Paving, 4,074 ft Contractor: M/S Mir Akter Hossain and Co. Contract Price: Tk 1,258,460	03	Same contractor as Group B. Awaiting the availability of a roller to start excavation work.
<u>Baliakandi - Rajbari Road</u>				
<u>1984 - 1985 Projects</u>				
21	ZRMIP/14/84-85, Group 1	Bituminous pavement, 1,600 m Contractor: Kh. Nazmul Hossain and Co. Contract Price: Tk 2,035,165	23	The quality of the work is good, but in mid-March, the contractor stopped all work until he receives an interim payment.
22	ZRMIP/15/84-85, Group 2	Bituminous pavement, 1,600 m Contractor: Mr. Taser Ali Bepari Contract Price: Tk 1,741,350	18	The W/M work is complete on this project. Now awaiting availability of a roller to start the paving work. Paving aggregates are being processed.
23	ZRMIP/16/84-85, Group 3	Bituminous pavement Contractor: M/S Ghose Brothers Contract Price: Tk 1,613,765	40	About 1200 m of W/M are complete. The contractor has stopped all work until he receives an interim payment.

## Exhibit IX - CONSTRUCTION SUPERVISION PROJECTS - FARIDPUR

Sheet 4 of 5

Serial Number	Contract Identification	Description Of Work Order	Percent Complete	Current Comments
<u>Baliakandi - Rajbari Road (Cont.)</u>				
<u>1984 - 1985 Projects (Cont.)</u>				
24	LAMP/17/84-85, Group 4	Bituminous pavement, 1,600 m Contractor: Mr. Kazi Eradat Ali Contract Price	34	About 1000 m of WBM is complete. The subgrade was lost in the heavy rains during the latter part of the month.
25	LAMP/18/84-85, Group 5	Bituminous pavement, 1,600 m Contractor: Mr. Kazi Eradat Ali Contract Price: Tk 2,035,165	35	About 1100 m of WBM is complete. The contractor chose to place 600 m of 7 in. WBM and 300 m of 8 in. WBM where both the F.M. of the sand and the thickness of the sand layer were deficient.
26	LAMP/19/84-85, Group 6	Bituminous pavement, 1,600 m Contractor: Md. Akbar Ali Contract Price: Tk 1,659,550	18	The WBM work is complete on this project. Now awaiting availability of a roller to start the paving work. Aggregates for paving are being processed.
27	LAMP/20/84-85, Group 7	Bituminous pavement, 540 m Contractor: Mr. N.K. Mukharjee Contract Price: Tk 557,618.04	48	The WBM work is complete on this project. Now awaiting availability of roller to start the paving work.
28	LAMP/21/84-85, Group 8	Bituminous pavement, 1,423 m Contractor: Mr. N.K. Mukharjee Contract Price: Tk 705,878.26	14	Deficiencies in the existing WBM are being corrected under Pilot Maintenance. The contractor started paving work on 22 March 1985, and has completed 200 lin. m.
29	LAMP/22/84-85,	bridge approach, Horal bridge Contractor: Mr. Emdadul Hoque Contract Price: Tk 669,940	50	The mattresses and revetments were eliminated on these approaches, and the paving changed to WBM. Khea for WBM has been processed.
30	LAMP/23/84-85	Bridge approach, Matiapara bridge Contractor: Mr. S.N. Emdadul Hoque Contract Price: Tk 290,130	50	The mattresses and revetments were eliminated on these approaches, and the paving changed to WBM. Khea for WBM has been processed.

Exhibit IX - CONSTRUCTION SUPERVISION PROJECTS - FARIDPUR.

Sheet 5 of 5

Serial Number	Contract Identification	Description of Work Order	Percent Complete	Current Comments
D i g n a g a r - M u k s u d p u r R o a d				
<u>1964 - 1965 Projects</u>				
31	ZAMIP/24/64-65	Bridge approach, Banagram Bridge Contractor: Mr. A. Bari Mia Contract Price: Tk 758,000	50	Piles for both new abutments have been driven, and the modifications to change existing abutments to piers have been completed. The north abutment footing has been poured. Mattressing and revetments have been eliminated and the paving changed to WPM.

EXHIBIT X  
=====

BAR CHARTS AND PROGRESS CURVES

PARTD12

**FARIDPUR  
MADHUKHALI - BALIAKANDI  
ROAD  
ALL GROUPS  
84-85 SCHEMES**

DATE : 31 MAR. '85.  
% COMPLETION:  
SCHEDULED = 72 %  
ACTUAL = 64 %

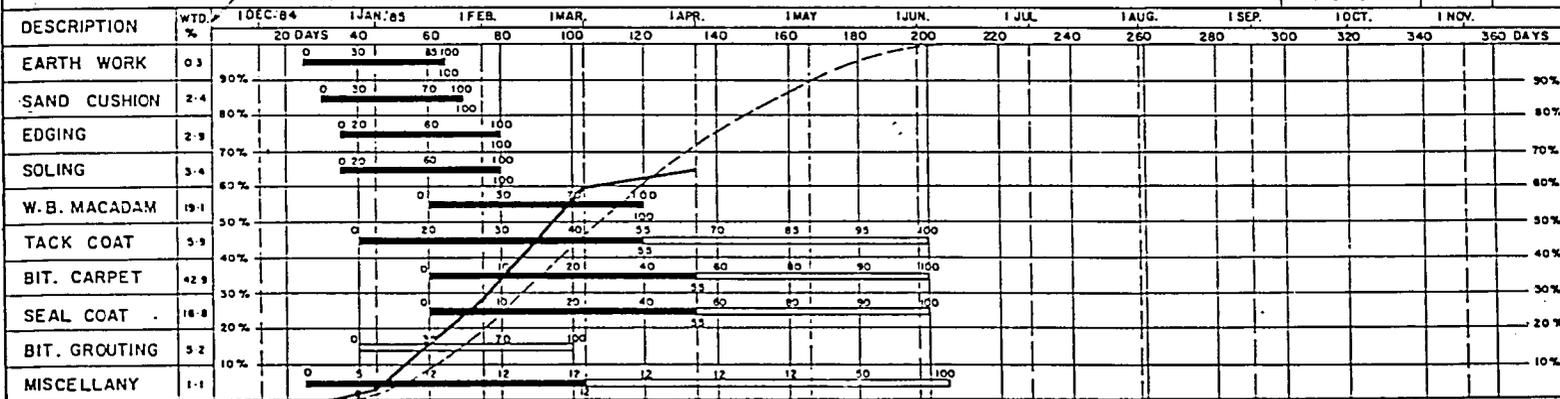
**LEGEND**

 SCHEDULED PROGRESS  
 ACTUAL PROGRESS  
 AUTHORIZED TIME EXT.

**CONTRACT DATA**

TOTAL	GROUP	K	L
9782 L.F.	LENGTH	5326 L.F.	4454 L.F.
25.70132	COST (TR)	14,00,397	11,69,736
WORK ORDER DATE	18 NOV.84	18 NOV.84	18 NOV.84
BEGIN WORK	13 DEC.84	13 DEC.84	13 DEC.84
SCHED COMP	11 JUN.85	11 JUN.85	11 JUN.85
ACTUAL COMP	24 FEB.85		
TIME EXT.			

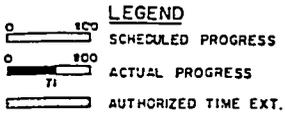
WORK ORDER DATE  
13, NOV. '84.



51

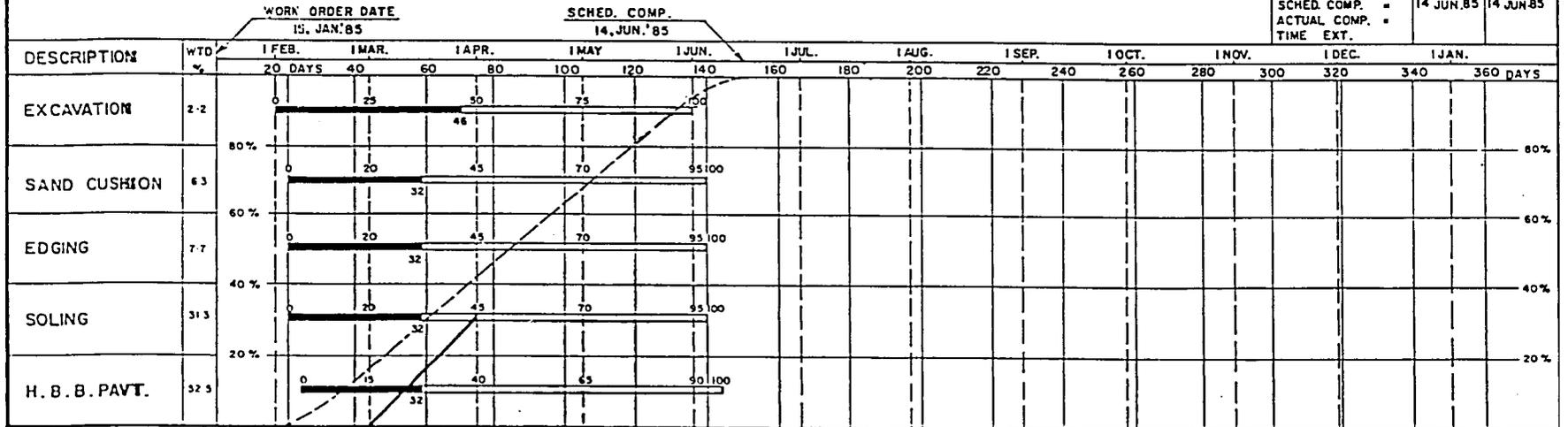
**FARIDPUR**  
**HATKRISHNAPUR - SADARPUR - PIAJKHALI**  
**GROUPS B & C**  
**84-85 SCHEMES**

DATE :  
 % COMPLETION :  
 SCHEDULED = 54%  
 ACTUAL = 35%



**CONTRACT DATA**

TOTAL	GROUP	B	C
17,959.5 L.F.	LENGTH	11,993 L.F.	5,966.5 L.F.
41,56,008	COST (TK)	27,55,614	14,00,394
WORK ORDER DATE	15 JAN.85	15 JAN.85	15 JAN.85
BEGIN WORK "	1 FEB.85	1 FEB.85	1 FEB.85
SCHED. COMP. "	14 JUN.85	14 JUN.85	14 JUN.85
ACTUAL COMP. "			
TIME EXT. "			

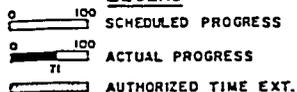




**FARIDPUR**  
**BALIAKANDI - RAJBARY**  
**ROAD**  
**ALL GROUPS**  
**84-85 SCHEMES**

DATE : 31 MAR. '85.  
 % COMPLETION :  
 SCHEDULED = 54%  
 ACTUAL = 39%

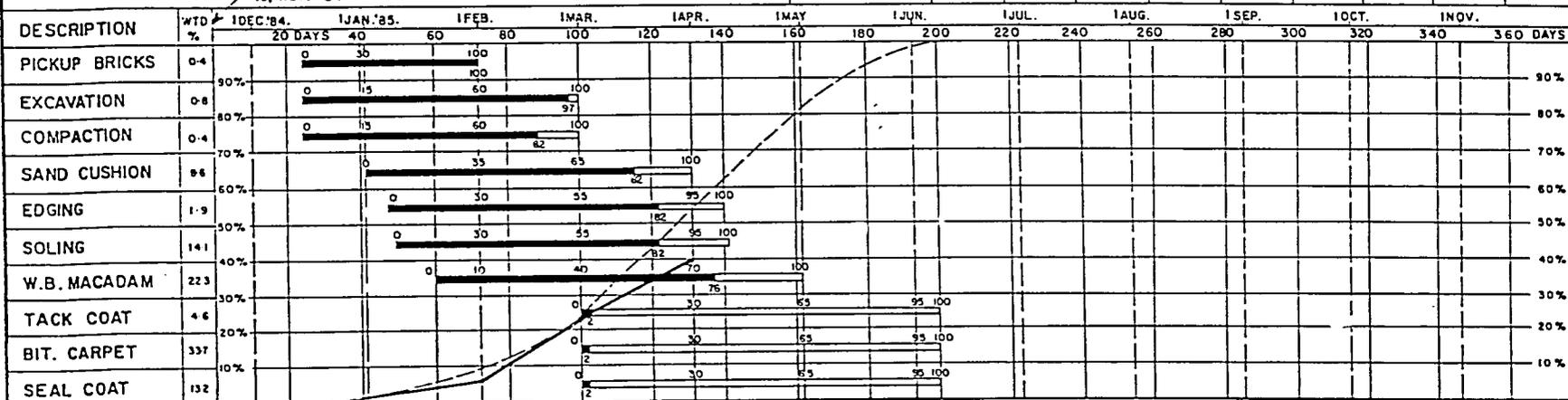
**LEGEND**



**CONTRACT DATA**

TOTAL	GROUP	1	2	3	4	5	6	7	8
11563 m. 122,5395	LENGTH COST(TK)	1600 m. 20,35,185	1600 m. 17,41,350	1600 m. 16,13,765	1600 m. 18,26,280	1600 m. 20,35,185	1600 m. 16,99,950	540 m. 5,57,802	1425 m. 7,05,878
WORK ORDER DATE		19 NOV.84	20 NOV.84	20 NOV.84	18 NOV.84	19 NOV.84	19 NOV.84	20 NOV.84	19 NOV.84
BEGIN WORK		14 DEC.84	15 DEC.84	15 DEC.84	13 DEC.84	14 DEC.84	14 DEC.84	15 DEC.84	14 DEC.84
SCHED COMP.		12 JUN.85	13 JUN.85	13 JUN.85	11 JUN.84	12 JUN.84	12 JUN.85	13 JUN.84	12 JUN.85
ACTUAL COMP.									
TIME EXT.									

WORK ORDER DATE  
 19, NOV. '84



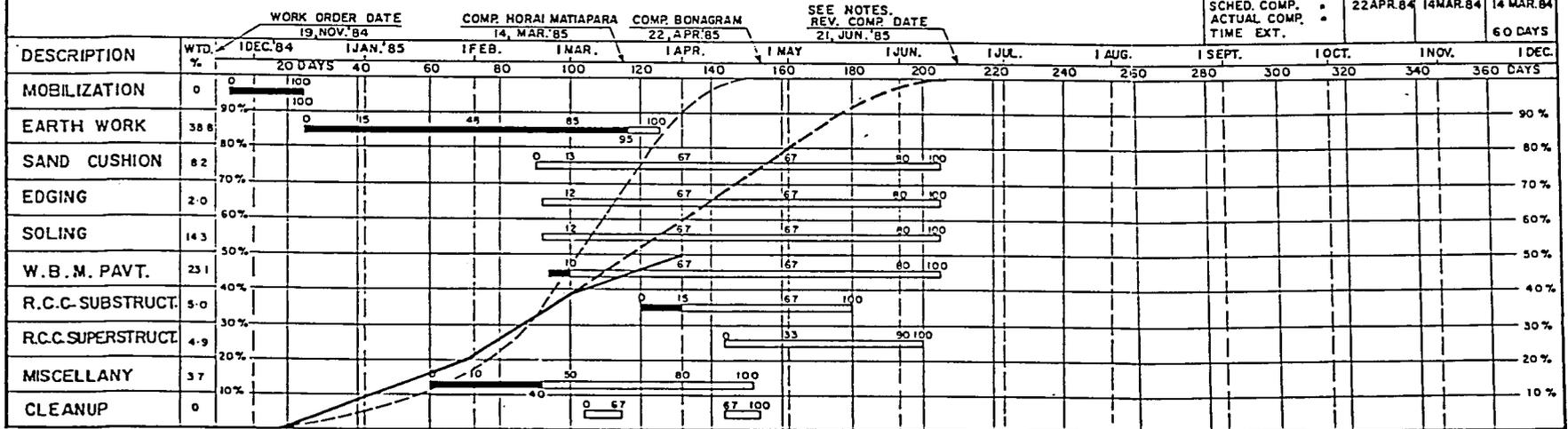
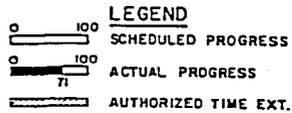
**FARIDPUR  
BRIDGE APPROACHES  
BONAGRAM - HORAI - MATIAPARA  
84 - 85 SCHEMES**

DATE:  
% COMPLETION:  
SCHEDULED = 50%  
ACTUAL = 50%

CONTRACT DATA

TOTAL	BRIDGE	BONAGRAM	HORAI	MATIAPARA
1045 m.	LENGTH	410 m.	410 m.	225 m.
18,45,165	COST (TK.)	8,85,000	6,69,940	2,90,225
WORK ORDER DATE		29 NOV. 84	19 NOV. 84	19 NOV. 84
BEGIN WORK		23 DEC. 84	14 DEC. 84	14 DEC. 84
SCHED. COMP.		22 APR. 84	14 MAR. 84	14 MAR. 84
ACTUAL COMP.				
TIME EXT.				60 DAYS

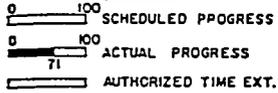
NOTES:  
1. BONAGRAM APPROACHES CHANGED TO R.C. SPANS.  
2. BAR CHART REVISED 25, MARCH '85.



FARID PUR  
ALL SCHEMES  
AND  
MAINTENANCE  
84-85

DATE:  
% COMPLETION:  
SCHEDULED = 56%  
ACTUAL = 38%

LEGEND



DESCRIPTION	COST (LAC)	WTD %	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.
MADHUKHALI-BALIAKANDI	25.70	8.3	20	46	72	90	99	100						
BALIAKANDI-RAJBARY	122.15	39.3	10	24	39	54	62	71						
TALMA-HATKRISHNAPUR	64.15	20.7	10	25	34	42	51	60						
HATKRISHNA PUR-SADARPUR	41.56	13.4	0	19	29	35	42	50						
BRIDGE APPROACHES	18.45	5.9	18	47	59	70	80	90						
BRIDGES	27.51	8.9	0	22	38	50	60	70						
PILOT MAINTENANCE	10.88	3.5	5	11	30	58	83	100						

### 7.1.2 Trailer-Mounted Water Tanks

All six units have been delivered. Two units each have been sent to Sylhet and Rangpur Districts.

## 7.2 International Procurement

### 7.2.1 Heavy Equipment, Vehicles, And Tools

All specifications and bidding procedures must now be rechecked for compliance with BDG specifications and rules before LGEB will grant final authorization for procurement.

### 7.2.2 WSA Office Vehicles

To date, the two WSA office vehicles, a sedan and a minibus, have not been purchased. No immediate resolution to the problem can be expected in the near future.

## 8.0 PERSONNEL

The current status of all personnel (WSA/BCL/PAS) is shown in tabular form in Appendix D. Problems in connection with personnel assignments are discussed in the following section.

## 9.0 PROBLEMS AND PROPOSED SOLUTIONS

### 9.1 Organization And Management

It appears that the problems discussed in the previous two monthly reports are being solved, at least to a certain degree. However, Rangpur is still reporting difficulties in communications between the XEN's office and the RE's office. For the good of all parties concerned, a renewed effort should be made to resolve these differences.

### 9.2 Maintenance System And Supervision

There have still been no comments made concerning the draft of the maintenance manual which was submitted in January 1985. When such comments have been received, and corresponding adjustments made, this manual will serve as a guide to the solution of many of the maintenance problems which now exist.

### 9.3 Preparation Of Technical Specifications

The final draft of this manual is scheduled to be submitted by the end of May. As with all manuals being prepared by the Consultant, it would be most helpful if comments concerning this manual could be received within a reasonable time.

#### 9.4 Training

If the second AIT training course, now being discussed as a possibility for June 1985, is to indeed become a reality, then LGEB must take immediate steps to obtain BDG approval for the 15 recommended participants.

#### 9.5 Construction System And Supervision

Problems in connection with this work have been discussed in the review of the individual construction projects. Suffice it to say here that, for the most part, the problems are being resolved through mutual efforts of all concerned.

#### 9.6 Procurement Of Equipment

It is hoped that, once confirmation is made of final compliance with all of the the rules and regulations of BDG, the orders for the equipment may be placed.

#### 9.7 Personnel

At the moment, there are no significant problems with regard to personnel.

#### 9.8 Miscellaneous

There are no specific problems of this category.

#### 10.0 MISCELLANEOUS

The Monthly Financial Statement may be found in Appendix E.



Fred L. Barnes  
Chief of Party

APPENDIX A

PHOTOS OF MAINTENANCE ACTIVITIES

SYLHET

RAINGPUR

SYLHET DISTRICT  
MAINTENANCE ACTIVITIES.

BAHUBAL- PUTIJURI- BIJNAGHAT ROAD - MIXED.

Workers engaged in the levelling and cambering of the earth portion of this road. Note that no new material is being added, just the levelling of high spots to fill depressions.



An overall view of a completed section of levelling and cambering. Photos taken on 18 March.

SYLHET DISTRICT  
MAINTENANCE ACTIVITIES.

BAHUBAL- PUTIJURI- BIJNAGHAT ROAD - MIXED (con't).



Another illustration of the excellent type of earth road maintenance being obtained on this road. Photo taken 18 March.

SYLHET DISTRICT  
MAINTENANCE ACTIVITIES.

NABIGANJ- BANIYACHUNG ROAD.



A good view of the before-and-after condition of this long neglected roadbed. This type of maintenance has improved the road surface so much that regularly scheduled bus service has been initiated.

RANGPUR DISTRICT  
MAINTENANCE ACTIVITIES.

MAHIGANJ- DAMDAMA PROJECT.



Mr. Leonard and Mr. Barnes inspected Mahiganj-  
Damdama Road Pilot Maintenance Scheme on March 4, 1985.  
Earth shoulder improvement was going in progress.

APPENDIX B

DISTRICT SOIL LABORATORY ACTIVITIES.

LABORATORY ACTIVITIES OF SYLHET DISTRICT FOR THE  
MONTH OF MARCH '85

Name of road and location from where materials collected	Sample no.	Wt. of Cube/ Cylinder.	Size of sample.	Slump.	Proportion of mix.	Age in days.	Load in lbs.	Compressive strength in PSI	Remarks.
Nabiganj-Baniachung Road(Borak khal). Sample taken during bottom slab casting.	S <sub>17</sub>		6"x6"	2½"	1:2:4	49	85,000 88,000	2361 2444	Fine aggregates - (F.M.=1.8/1.96)+ Coarse aggregates(20.30 mm down-graded) + chatak cement.
Atgram-Zakiganj Road. Bridge Site. Sample taken during bottom slab casting (Contractor:Hafiz Mia).	S <sub>18</sub>		6"x6"	2"	1:2:4	52	87,000 86,000	2417 2389	-ditto-
Atgram-Zakiganj Road. Bridge Site. Sample taken during bottom slab casting.	S <sub>19</sub>		6"x6"	2½"	1:2:4	41	95,000 68,000	2639 1889	-ditto-
Fenchuganj-Gilachara Road. Sample taken during the casting of top slab of 6.8m culvert .	S <sub>20</sub>		6"Øx12"	2½"	1:2:4		85,000 60,000	3006 2122	-ditto-

LABORATORY ACTIVITIES OF SYLHET DISTRICT FOR THE  
MONTH OF MARCH '85

Name of road/dial and location.	Test Result	Sieve /Hydro- meter analysis.			Atterberg limits.			Field density.		Compaction test.		% Compac- tion.		C.B.R. (%)		Remarks.
		Sand (%)	Silt (%)	Clay (%)	L.L. (%)	P.L. (%)	P.I. (%)	$\gamma_d$ kg/m <sup>3</sup>	W (%)	M.D.D. (kg/m <sup>3</sup> )	O.M.C (%)	Modi- fied.	Stan- dard.	Unsoa- ked.	Soa- ked.	
Dhakadakshin-Beanibazar Road.(Sunampur Turning). Depth:0.1-0.25 m. Sample no.S <sub>89</sub> .	-	-	-	-	-	-	-	1488.79	28.41	1885.53	17.05	79	-	-	-	This is the 1st sample taken after raising of the road.
Fenchuganj-Ghilachara Road. Sample no.S <sub>91</sub> .	F.M. =1.77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Sample used for RCC Box culvert.
Dhakadakshin-Beanibazar Road.(Sunampur Turning). Depth:0.1-0.25 m. Sample no.S <sub>93</sub> .	-	-	-	-	-	-	-	1554.82	26.11	1885.53	17.05	82	-	-	-	This is the 2nd sample collected from Sub- grade.
Dhakadakshin-Beanibazar Road.(75 m.from Kushiara River Bank). Depth:0.1- 0.25 m. Sample no.S <sub>94</sub> .	-	-	-	-	-	-	-	1554.66	18.24	1867.26	15.36	83	-	-	-	This is the 1st sample collected from sub- grade.

$\gamma_d$  = Dry density.  
W = Water content.  
MDD = Max dry density.  
O.M.C = Optimum water content.

## LABORATORY ACTIVITIES OF SYLHET DISTRICT FOR THE MONTH OF MARCH '85

Name of road and location from where materials collected.	Grading of pea gravels and stone chips by % of finer by sieve analysis.												<u>Remarks.</u>
	Sieve no. 3/4"	Sieve no. 1/2"	Sieve no. 4	Sieve no. 3	Sieve no. 10.	Sieve no. 16.	Sieve no. 30.	Sieve no. 40.	Sieve no. 50.	Sieve no. 80.	Sieve no. 100.	Sieve no. 200.	
Sylhet - Badhaghat Road.  Sample No. S <sub>90</sub> .	-	-	94.075	66.025	-	22.625	3.375	-	0.60	-	0.125	0.05	

## LABORATORY ACTIVITIES OF RANGPUR DISTRICT FOR THE MONTH OF MARCH '85

Name of road and location from where materials collected.	Brick size.	Water Absorbed % of dry wt.	F.M.of sand/ Pea gravels.	Water contents ( % ).	<u>Remarks.</u>
Gaibandha- Saghhata Road, 15'-0" Span Bridge Site. Sample no.1.		16.47%			Bricks may be used.
-ditto- Sample no.2.		17.94%			Bricks- Does not follow the specification.
Mirganj- Jaldhaka Road, HBB Work Site. Sample no.3.		20.51%			-ditto-
Barodarga- Bhendabari Road, Group (b)C, HBB Work Site. Sample no.4.		20.00%			-ditto-
-ditto- (10'-0" Span Culvert Site) Sample no.5.		20.47%			-ditto-
-ditto- HBB Work Site Group (a)B, Sample no.6.		21.70%			-ditto-
-ditto- HBB Work Site, Group (b)C Sample no.7.		18.30%			-ditto-
-ditto- HBB Work Site, Group (a)A Sample no.8.		20.97%			-ditto-

# LABORATORY ACTIVITIES OF RANGPUR DISTRICT FOR THE MONTH OF MARCH '85

Name of road and location from where materials collected.	Test Result	Grading of pea gravels and stone chips by % of finer by sieve analysis.											<u>R e m a r k s .</u>	
		Sieve 1"	Sieve 3/4"	Sieve 1/2"	Sieve 3/8"	Sieve 1/4"	Sieve no.4	Sieve no.8	Sieve no.10	Sieve no.16	Sieve no.40	Sieve no.80		Sieve no.200.
Barodarga-Bhendabari Road. (Group-2A(b) in 1984-85. Sample no.1.	F.M. =0.78													Does not follow the specification.
Barodarga-Bhendabari Road. - 50' Ring Culvert. Sample no.2.	F.M. =2.65													Suitable for RCC work.
Barodarga-Bhendabari Road. (Group-b(B) in 1984-85. Sample no.6.	F.M. =0.96													May be used for sand-cushioning.
Barodarga-Bhendabari Road. Group-D, New in 1983-84. Sample no.2.	—													Does not follow the specification.

LABORATORY ACTIVITIES OF RANGPUR DISTRICT FOR THE  
MONTH OF MARCH '85

Name of road/Khal and location.	Test Result	Sieve /Hydro- meter analysis.			Atterberg limits.			Field density.		Compaction test.		% Compac- tion.		C.B.R. - (%)		Remarks.
		Sand (%)	Silt (%)	Clay (%)	L.L. (%)	P.L. (%)	F.I. (%)	Yd kg/m <sup>3</sup>	W (%)	M.D.D. (kg/m <sup>3</sup> )	C.M.C (%)	Modi- fied.	Stan- dard.	Unsoa- ked.	Soa- ked.	

Mirganj-Jaldhaka Road. Sp. gr. 45.0 52.0 3.0 Non plastic. 1639.4 14.7 1768.0 15.1 - 92.7 3828 10.4  
200 feet from the Tan- =2.66  
gonmari Hat. Depth 0'-6".

Damdama-Mahiganj Road Sp. gr. 9.0 81.0 10 28.6 18.1 10.6 1451.0 18.6 1694.0 15.6 - 85.6 - -  
West site of Madrasha, =2.62  
Depth 0'- 6".

Yd = Dry density.  
W = Water content.  
MDD = Max dry density.  
C.M.C = Optimum water content.

LABORATORY ACTIVITIES OF FARIDPUR DISTRICT FOR THE  
MONTH OF MARCH '85

Name of road and location from where materials collected	Sample no.	Wt. of Cube/ Cylinder.	Size of sample.	Slump.	Proportion of mix.	Age in days.	Load in lbs.	Compressive strength in PSI	Remarks.
Hatkrishnapur-Sadar -pur-Piajkhali Road.				1½"		7		2,666	West footing F-1 (Cube no.A).
-ditto-				1½"		14		3,166	-ditto- (Cube no.B).
-ditto-				1½"		28		3,500	-ditto- (Cube no.C).
-ditto-				1¾"		7		3,166	East footing
-ditto-				1¾"		14		3,388	F-2 (Cube no.A). -ditto- (Cube No.B).
-ditto-				1¾"		28		3,750	-ditto- (Cube no.C).
-ditto-				2½"		7		3,333	West Abutment
-ditto-				2½"		7		3,333	A-1 (Cube no.A). -ditto- (Cube no.B).
Dignagar-Muksudpur Road.				2¾"		7		3,250	North footing F-1 (Cube No.A).

# LABORATORY ACTIVITIES OF FARIDPUR DISTRICT FOR THE MONTH OF MARCH '85

Name of road and location from where materials collected.	Brick size.	Absorption capacity.	F.M. of sand/ Pea gravels.	Water contents ( % ).	<u>Remarks.</u>
Talma-Hatkrishnapur Road. (Group-1).			1.13		Local sand.
Rajbari-Baliakandi Road. (Group-5).			0.606		-ditto-
-ditto- (Group-5).			0.641		-ditto-
-ditto- (Group-5).			0.648		Retest.
-ditto- (Group-5).			1.34		Stock pile - local sand.
-ditto- (Group-5).			0.75		-ditto-
-ditto- (Group-4).			0.86		-ditto-
-ditto- (Group-1).			0.91		-ditto-
-ditto- (Group-2).			0.95		-ditto-
-ditto- (Group-5).			1.14		Sample no.1.
Rajbari-Baliakandi Road. suppl. (A.E., LGEB) (Group-5).			1.015		Local sand.
-ditto- (Group-5).			0.92		Sample no.2.
-ditto- (Group-5).			1.012		Sample no.3.

## LABORATORY ACTIVITIES OF FARIDPUR DISTRICT FOR THE MONTH OF MARCH ' 85

Name of road and location from where materials collected.	Brick size.	Absorption capacity.	F.M. of sand/ Pea gravels.	<u>R e m a r k s.</u>
Talma-Hatkrishnapur Road. (Group-4).			1.10	Local sand.
-ditto- (Group-C).			0.846	-ditto-
Rajbari-Baliakandi Road. (Group-5).-Ch.8000 M).			0.707	Collection from sand sub-base after work.
-ditto- (Group-5).-Ch.7950 M).			0.581	-ditto-
-ditto- (Group-5).- Ch.7900 M).			0.701	-ditto-
-ditto- (Group-5).-Ch.7850 M).			0.46	Local sand collection from sub-base after work.
-ditto- (Group-5).-Ch.7800 M).			0.652	-ditto-
-ditto- (Group-5).-Ch.7750 M).			0.52	-ditto-
-ditto- (Group-5).- Ch.7700 M).			0.556	-ditto-

# LABORATORY ACTIVITIES OF FARIDPUR DISTRICT FOR THE MONTH OF MARCH '85

Name of road and location from where materials collected.	Brick size.	Absorption capacity.	F.I. of sand/ Pea gravels.	R e m a r k s.
Rajbari-Baliakandi Road (Group-1).			0.93	Local sand, Sample no.1.
-ditto- (Group-1).			0.34	" " Sample no.2.
-ditto- (Group-3).			0.917	Local sand.
-ditto- (Group-4).			0.659	-ditto-
-ditto- (Group-5).			0.83	-ditto-
Hatkrishnapur-Piajkhali Road. (Khaigo Khal Bridge)			2.55	Sylhet sand.
-ditto-			1.03	Local sand.
-ditto-			2.176	Sylhet + Local sand, 67% + 33% respectively.
Hatkrishnapur-Piajkhali- Sadarpur Road. (Group-C).			0.88	Local sand.
-ditto- (Group-B).			0.67.	-ditto-
Talma-Hatkrishnapur Road. (Group-A).			0.90	-ditto-

- 74 -

## LABORATORY ACTIVITIES OF FARIDPUR DISTRICT FOR THE MONTH OF MARCH '85

-75-

Name of road and location from where materials collected.	Brick size.	Absorption capacity.	F.I. of sand/ Pea gravels.	<u>R e m a r k s.</u>
Rajbari-Baliakandi Road. (Group-5)- Ch. 7650 M).			0.63	Local sand collected from sand sub-base course.
-ditto- (Group-5)- Ch. 7600 M).			0.60	
-ditto- (Group-5)- Ch. 7550 M).			0.40	-ditto-
-ditto- (Group-5)- Ch. 7550 M).			0.637	-ditto-
-ditto- (Group-5)- Ch. 7450 M).			0.619	-ditto-
-ditto- (Group-5)- Ch. 7400 M).			0.447	-ditto-
-ditto- (Group-5)- Ch. 7350 M).			0.59	-ditto-
-ditto- (Group-5)- Ch. 7300 M).			0.82	-ditto-
Talma-Hatkrishnapur Road. (Group-A).			0.891	Local sand.
Hatkrishnapur-Sadarapur Road. (Group-C).			0.83	-ditto-
-ditto- (Group-B).			0.864	-ditto-
Rajbari-Baliakandi Road. (Group-4).			0.66	-ditto-
-ditto- (Group-1).			0.681	-ditto-

APPENDIX C

PHOTOS OF CONSTRUCTION ACTIVITIES.

SYLHET DISTRICT  
RANGPUR DISTRICT  
FARIDPUR DISTRICT

SYLHET DISTRICT  
CONSTRUCTION ACTIVITIES.

SHAHBONDAR- SHAMSHERGANJ ROAD.

ZRMI/9A/84-85 - 2.825 Km. LEVELLING COURSE.



A view of the type of earth filling of the embankment in progress on this contract. Note that only foot traffic has been able to travel this section of road because of lack of finishing. Photos taken 18 March, 1985.

SYLHET DISTRICT  
CONSTRUCTION ACTIVITIES.

BAHUEAL- PUTIJURI- BIJNAGHAT ROAD.

ZRMI/10/84-85 - 1.5 Km. BITUMINOUS PAVEMENT.

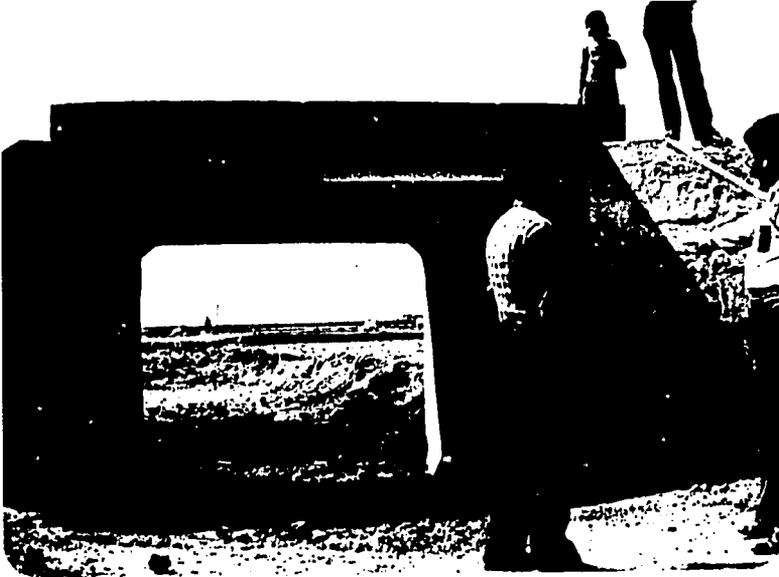


A view of the sub-grade approximately one kilo-meter from Dubai Bazar, where the Contractor was obliged to fill and aerate a large area that had been a series of mud holes. Photo taken March 3, 1985.

SYLHET DISTRICT  
CONSTRUCTION ACTIVITIES.

BAHUEAL- PUTIJURI- BIJNAGHAT ROAD.

ZRMI/11/84-85 - 3 NOS. BOX CULVERTS (REVISED).



A view of the completed 3.6 meter Box Culvert at Borchar. The A&S is pointing out the final cleanup to be executed for acceptance.



A view of the completed skew 3.6 meter Culvert at Hasnabad. Note the recently inaugurated bus service. Photos taken on 3 March, 1985.

SYLHET DISTRICT  
CONSTRUCTION ACTIVITIES.

BAHUBAL- PUTIJURI- BIJNAGHAT ROAD.  
ZRMI/11/84-85 - 3 NOS. BOX CULVERTS (REVISED).



A view of the formwork and reinforcement bar ready for the casting of the top slab of the 1.5 meter culvert at Hasnabad. This culvert has since been completed.

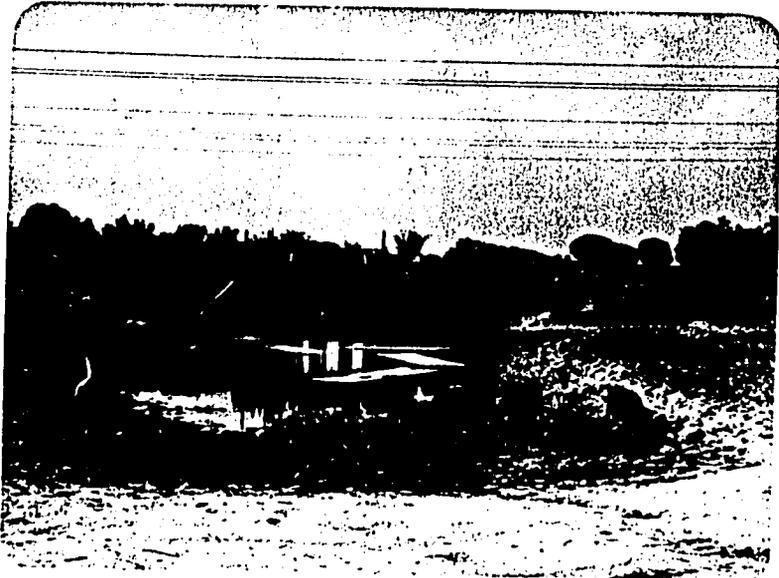


A view of the 1.5 meter culvert at Digom Bazar, partially ready for the casting of the top slab. This culvert has also since been completed. Photos were taken on 3 March, 1985.

SYLHET DISTRICT  
CONSTRUCTION ACTIVITIES.

BAHUBAL- PUTIJURI- BIJNAGHAT ROAD.

ZRMI/11/84-85 - 3 NOS. BOX CULVERTS(REVISED).



A view of the 4.5 meter Box Culvert near Bahubal. This photo was taken on 3 March. The Culvert has been completed since that time. Approach backfilling was accomplished during the last week of the month to allow traffic to travel over it.

SYLHET DISTRICT  
CONSTRUCTION ACTIVITIES.

BAHUBAL- PUTIJURI- BIJNAGHAT ROAD.

ZRMI/12/84-85 - 8 NOS. BRIDGE SLAB RECONSTRUCTION.



A view of the partially demolished old bridge structure which had been approximately a meter higher than the level shown. Photo taken on 3 March, 1985.

SYLHET DISTRICT  
CONSTRUCTION ACTIVITIES.

ATGRAM- ZAKIGANJ ROAD.

ZRMI/9/83-84 - 22.98 METER BOX CULVERT.

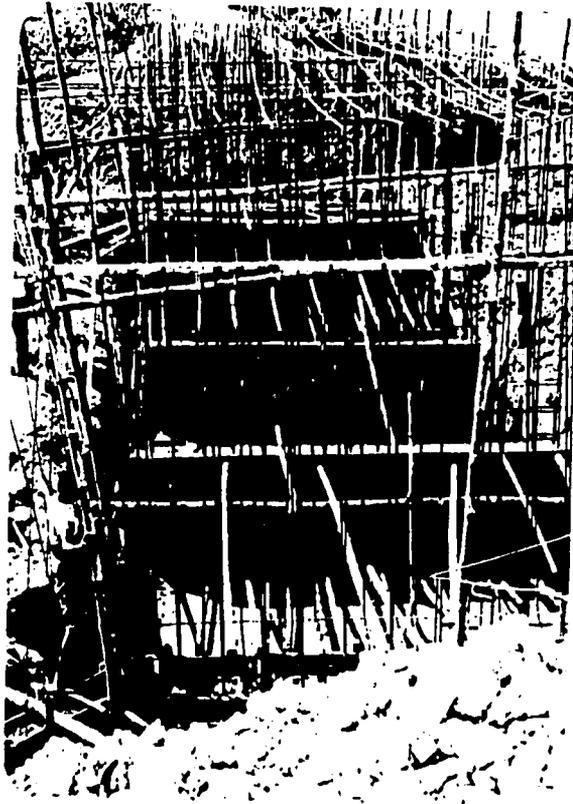


A view of the quality type of workmanship on the railing of this structure. The area in the background has been flooded since 17 March, 1985. This photo was taken on 11 March, 1985.

SYLHET DISTRICT  
CONSTRUCTION ACTIVITIES.

ATGRAM- ZAKIGANJ ROAD.

ZRMI/13/84-85 - 24.4 METER BOX CULVERT.

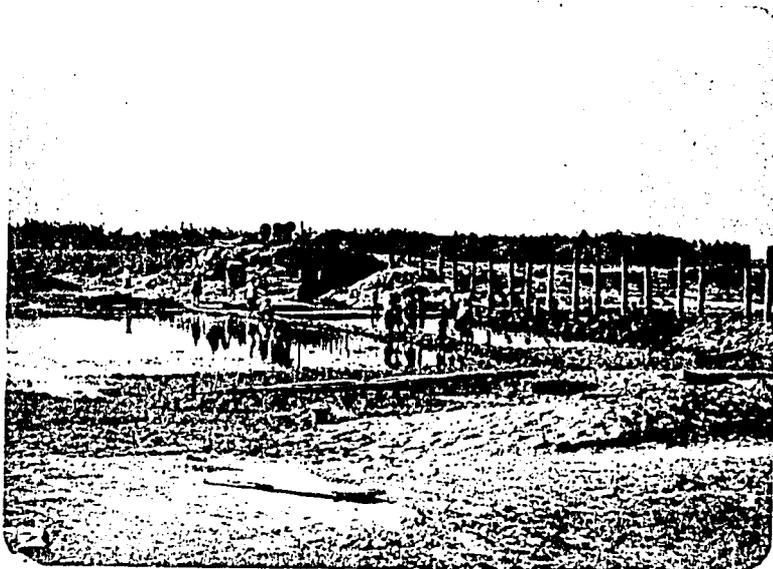


A view of the progress made on this structure as of 11 March when this photo was taken. The job site was flooded on 17 March halting further work for the present.

SYLHET DISTRICT  
CONSTRUCTION ACTIVITIES.

ATGRAM - ZAKIGANJ ROAD.

ZRMI/15C/84-85 - 10.1 METER BOX CULVERT.



A view of the job site from the opposite bank and close to the site for ZRMI/15A/84-85. Although the area in the foreground was flooded on 17 March, work continues on this structure.

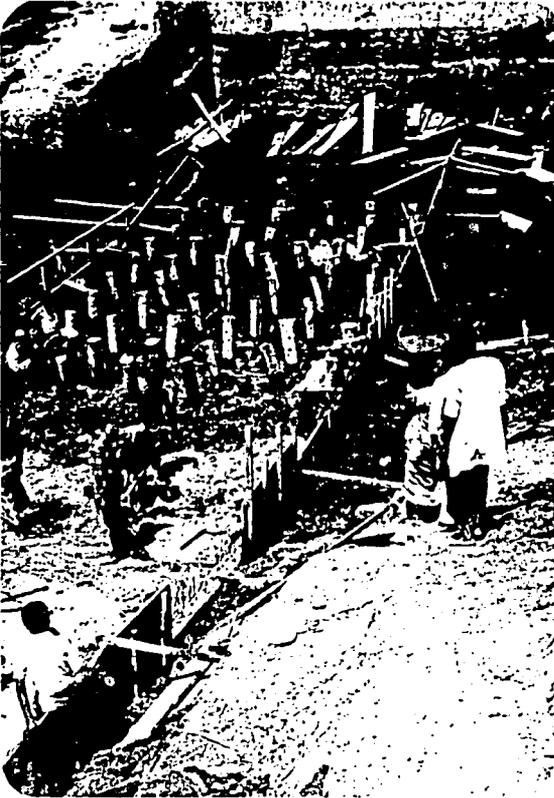


A closeup view of the progress made on this structure when the photo was taken on 11 March.

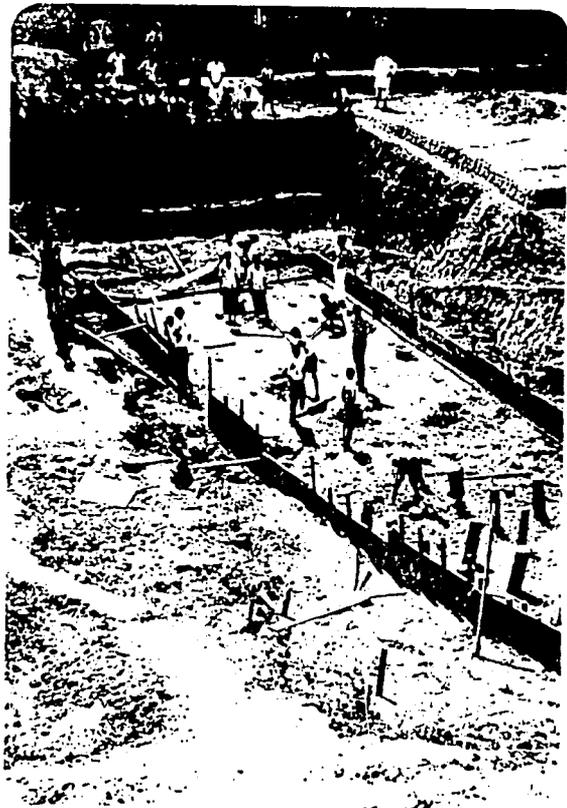
SYLHET DISTRICT  
CONSTRUCTION ACTIVITIES.

TAJPUR- SYEDPUR- NAYABONDAR ROAD.

ZRMI/16/84-85- 24.4 METER BOX CULVERT AT NAYABONDAR.



A view of the foundation preparation, with the tops of 20 ft. bullah piling shown in the background. The curtain, or dropwalls, have already been cast.



A view of the cutting of excess piling length and the placing of sand cushion for the foundation slab. Note the sidewalk superintendents in the background. Photos taken 13 March, 1985.

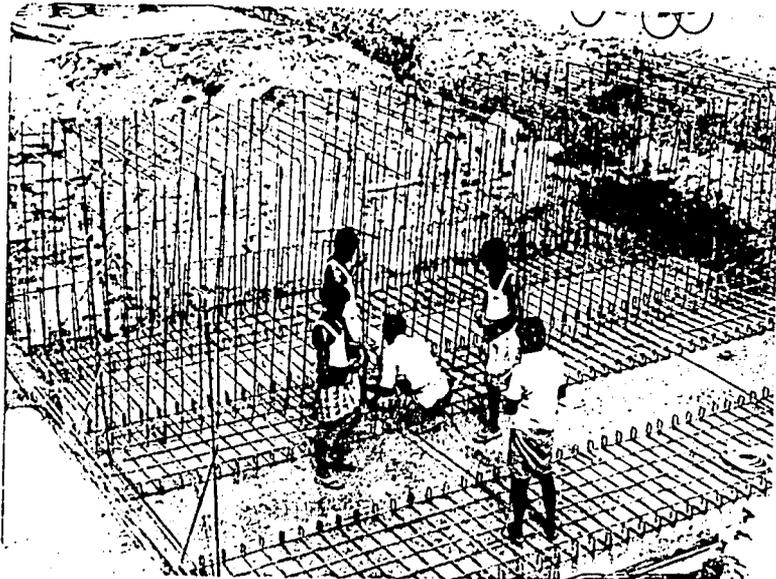
SYLHET DISTRICT  
CONSTRUCTION ACTIVITIES.

FENCHUGANJ- MAIJGAON- GHILACHARA ROAD.

ZRMI/19/84-85 - 2 NOS. 6.85 Km. & 3.6 METER BOX CULVERTS.



The completed 6.85 meter Box culvert, with curing of the top slab underway on 10 March. The Contractor was instructed to backfill the approaches and execute the site cleanup.



A view of the progress on this 4.5 meter Culvert as of 10 March. The brickwork at the lower left hand corner of the photo is that of the railway bridge adjacent.

SYLHET DISTRICT

CONSTRUCTION ACTIVITIES.

FENCHUGANJ- MAIJAON- GHILACHARA ROAD.

ZRMI/19/84-85 - 2 Nos. 6.85 m. & 3.6 m. Box Culverts.



Another view of this important drainage structure. Wing walls have been eliminated because the proximity of the railroad bridge with short connecting walls have made them unnecessary.

SYLHET DISTRICT

CONSTRUCTION ACTIVITIES.

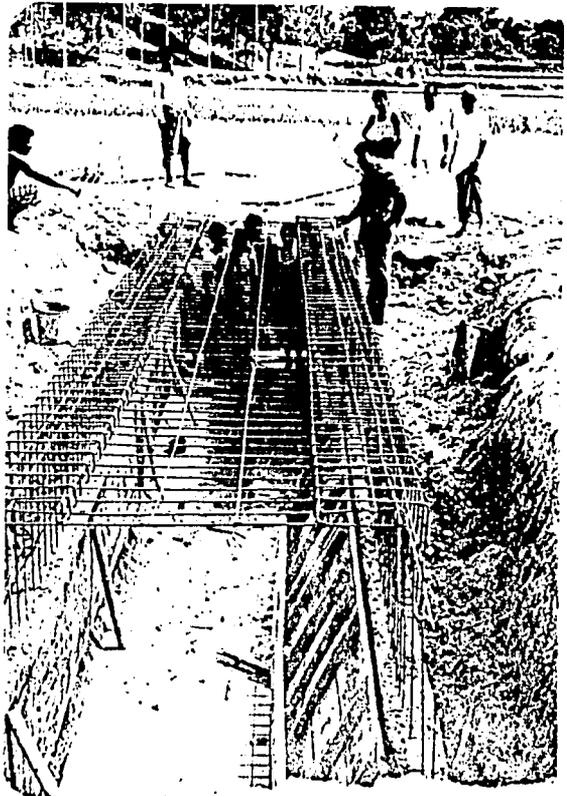
FENCHUGANJ- MAIJGAON- GHILACHARA ROAD.

ZRMI/20/84-85 - 6 NOS. 1.5 METER CULVERTS.

A view of the  
worksite and  
greased shutter-  
ing for concrete.



A view of the excellent  
workmanship found on this  
contract. This photo was  
taken on 10 March. The Culvert  
has since been completed.



SYLHET DISTRICT

CONSTRUCTION ACTIVITIES.

FENCHUGANJ- MAIJGAON- GHILACHARA ROAD.

ZRMI/20/84-85 - 6 NOS. 1.5 METER CULVERTS.



A view of the completed 1.5 meter Culvert located near Ghilachara. The ARE is pointing out the necessity for channel cleaning and proper back-filling of the head-wall.

SYLHET DISTRICT  
CONSTRUCTION ACTIVITIES.

FENCHUGANJ- MAIJGAON- GHILACHARA ROAD.

ZRMI/18/84-85 - 2.8 Km. LEVELLING COURSE.



Preparing the subgrade for the placing of the road metal stockpiled at the side.



A completed section of road metal just prior to rolling and compaction. These photos were taken on 10 March, 1985.

SYLHET DISTRICT

CONSTRUCTION ACTIVITIES.

DHAKADAKSHIN - BEANIBAZAR ROAD.

ZRMI/22/84-85 - 26.5 METER BOX CULVERT AT LULA RIVER.



A view of the ferry crossing at the Kushiyara River on the circuitous route to Eeanibazar and jobsite.



Illustrating the foundation excavation and diversion road progress on 11 March. The road alignment will be just to the right of the power pole in the background.

SYLHET DISTRICT  
CONSTRUCTION ACTIVITIES.

DHAKADAKSHIN- BEANIBAZAR ROAD.

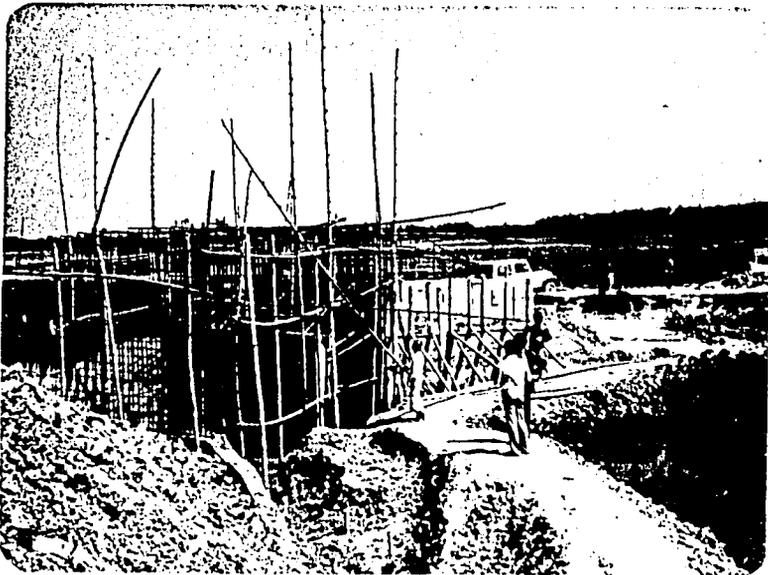
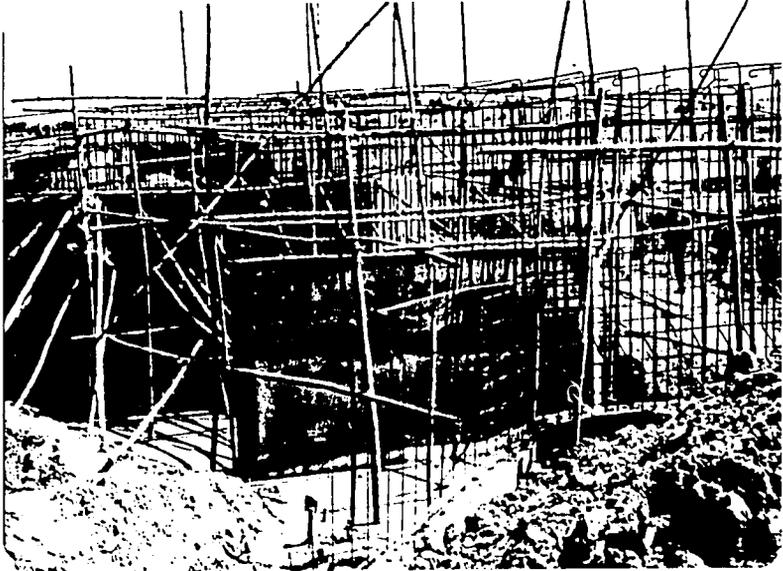


The above is a view of the present bridge over the site for a drainage structure located 6.1 Km. from Beanibazar. This structure would be included in the 1965-1986 schemes.

SYLHET DISTRICT  
CONSTRUCTION ACTIVITIES.

NABIGANJ- BANIYACHUNG ROAD.

ZRMI/24/84-85 - 10.1 METER BOX CULVERT AT BARRAKHAL.



Two views of the status of progress on this culvert when the photo was taken on 13 March. The quality of workmanship is readily visible.

SYLHET DISTRICT  
CONSTRUCTION ACTIVITIES.

NABIGANJ- BANIYACHUNG ROAD.

ZRMI/25/84-85 - 1 NO. 5.2 METER AND 3 NOS. 3.6 METER BOX CULVERTS.



A view of the jobsite and diversion road for the 5.2 meter culvert to be constructed at 5.8 Km. Taken on 13 March, 1985.



The 1.5 meter ARMC pipe culvert at 5.8 Km. Originally scheduled to be replaced; headwalls will be constructed instead.

SYLHET DISTRICT  
CONSTRUCTION ACTIVITIES.

NABIGANJ- BANİYACHUNG ROAD.

ZRMI/25/84-85 -

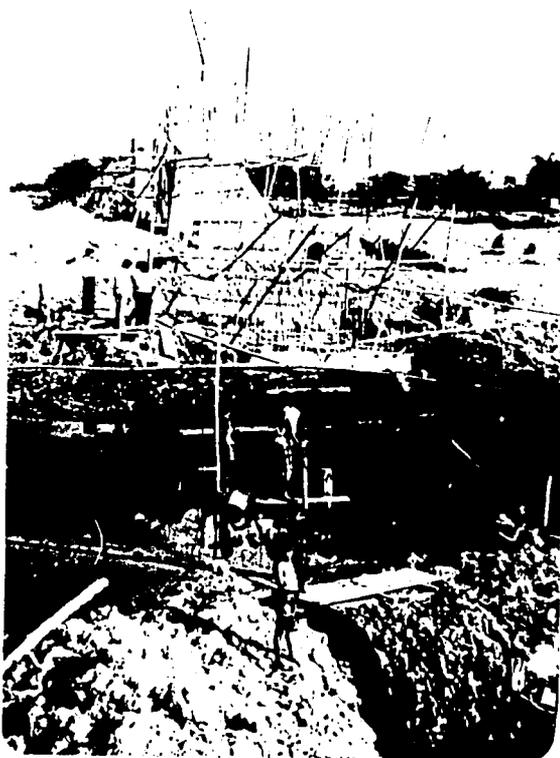


A view of the jobsite for a 3.6 meter Box Culvert to be built in lieu of the 1.5 meter Culvert replacement at 7.9 Km. This site is located at 8.5 Km. ,and the channel is called Izgurkhal.

SYLHET DISTRICT  
CONSTRUCTION ACTIVITIES.  
SHAKADAKSHIN- BEANIBAZAR ROAD.  
ZRMI/23/84-85 - 86 METER GIRDER BRIDGE AT RADHAJURI.



For work for the super structure supports, and a view of the east abutment and pier no.1 on the 11th of March, 1985.



The dark material in the foreground is organic material excavated from the proposed foundation for pier no.6. Since this unsuitable material extended for a depth of more than 2 meters, the XEN decided to eliminate this pier and change the super structure design over this area.

RANGPUR DISTRICT  
CONSTRUCTION ACTIVITIES.

BARODARGA- BHENDABARI ROAD.



Mr. Lugenbeel inspected this work site on February 26, 1985.  
Material spreading was going on for WEM in Group (a)A, '84-85  
work.



Rolling started here for WEM work in the above group.  
Mr. Lugenbeel observing the activities.

RANGPUR DISTRICT  
CONSTRUCTION ACTIVITIES.

BARODARGA- BHENDAEARI ROAD.



Curing work was going on here for 13'-5" RCC Slab which was cast on February 14, 1985.



Curing of the same bridge continuing for 28 days.

RANGPUR DISTRICT  
CONSTRUCTION ACTIVITIES.

BARODARGA- BHENDABARI ROAD.



Mr. Jack Leonard, Vice President, and Mr. F. L. Barnes, COP, WSA, inspected this newly completed bridge on March 5, 1985.



Mr. Leonard and Mr. Barnes taking a look at this damaged portion of a bridge. If immediate steps are not taken to repair it, the complete use of this road may be disrupted.

RANGPUR DISTRICT  
CONSTRUCTION ACTIVITIES.

BARODARGA- BHENDABARI ROAD.



Sand sub-base provided before brick flat soling in Group 'D' (83-84) on March 5, 1985. It was not well compacted.



Brick flat soling was going on in this Section of Road in Group 'D' (83-84) on March 5, 1985.

RANGPUR DISTRICT  
CONSTRUCTION ACTIVITIES.

BARODARGA- BHENDABARI ROAD.



Mr. Leonard and Mr. Barnes discussing about the work progress and problems about Barodarga-Bhendabari road with Mr. Ashraful Kabir, XEN, Rangpur, on March 5, 1985.



Casting of a 50" RCC Pipe Section was underway on March 12, 1985. Pouring of mixture into the formwork is seen.

RANGPUR DISTRICT  
CONSTRUCTION ACTIVITIES.

BARODARGA- BHENDABARI ROAD.



One completed pipe section is seen beside the other on which work was in progress in the previous photo.

RANGPUR DISTRICT  
CONSTRUCTION ACTIVITIES.



Samples of sub-standard mortar collected from the site of the Dariapur 10' Span Bridge are shown to Messrs. Leonard and Barnes. The defective work was repaired by the Contractor.



The visitors discussing the quality control problems in the laboratory. Mr. Tavel, RE, is at the right.

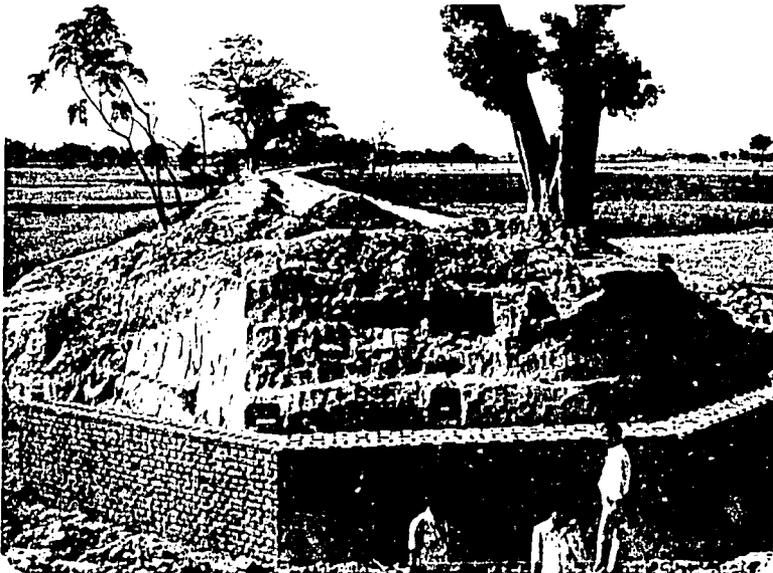
RANGPUR DISTRICT  
CONSTRUCTION ACTIVITIES.

BARODARGA- BHENDABARI ROAD.



Bituminous carpeting work was going on in Group-C(83-84) on March 13, 1985, but no Roller was available at the work site during the operation of spreading the premix. No adequate tack coat was provided before spreading. Compaction of completed work is not sufficient to meet the requirement of specifications.

20'-0" SPAN BRIDGE ON GAIBANDEA-NALDANGA ROAD (KHOLAHATI BRIDGE).



The brick work for abutment and wing-walls on one of this bridge project was up to this level on March 2, 1985.

RANGPUR DISTRICT  
CONSTRUCTION ACTIVITIES.

GAIBANDHA- NOLDANGA ROAD (KHOLAHATI BRIDGE).



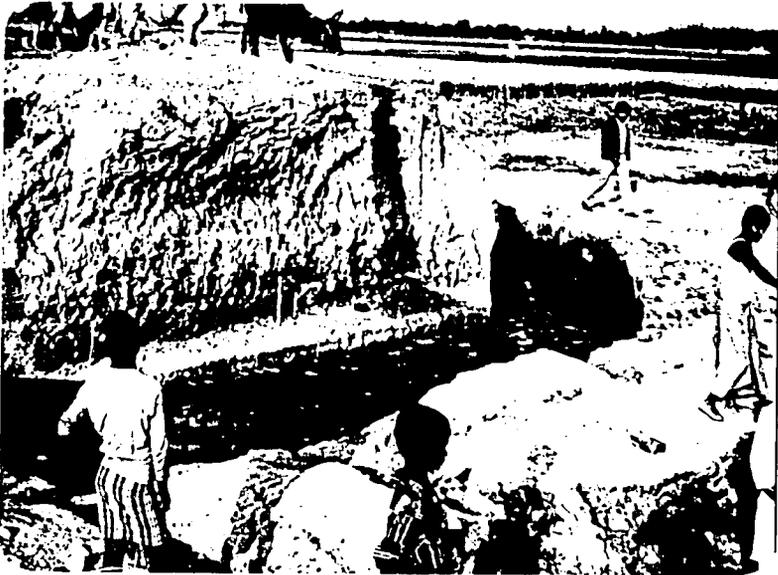
The position of the bridge work on the opposite abutment on the same date as the previous photo.



The brick work of the abutment and wingwall as seen on March 13, 1985. The work is far behind the scheduled progress. Work performed to date is of acceptable quality.

RANGPUR DISTRICT  
CONSTRUCTION ACTIVITIES.

15'-0" SPAN BRIDGE ON GAIBANDHA- SAGHATA ROAD.



Status of this bridge work on March 2, 1985. Progress of work is very slow.



Progress of the same work on March 13, 1985. The abutment brick work was up to the level of bed block casting.

RANGPUR DISTRICT  
CONSTRUCTION ACTIVITIES.

10'-0" SPAN BRIDGE NEAR DARIAPUR ON GAIBANDHA-KAMARJANI ROAD.



Quality of this brick abutment was rechecked on March 2, 1985 and found to be inferior. Demolition of the work was suggested. However, the Contractor had corrected the work by March 13, 1985.

MIRGANJ- JALDHAKA ROAD.



During inspection of the work of Group-A(83-84), it was found that the Contractor was using oversized pea-gravel for seal-coat. Screening of the material to remove oversize portion was started as a remedial measure.

RANGPUR DISTRICT  
CONSTRUCTION ACTIVITIES.

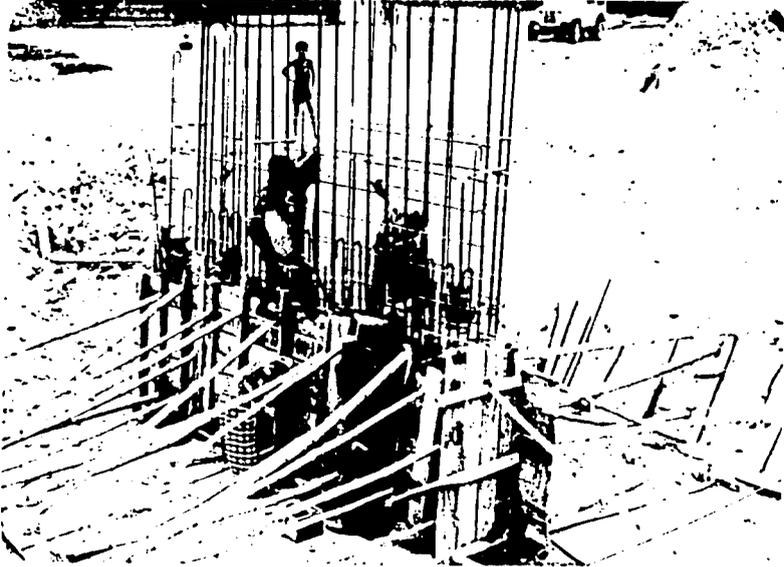
MIRGANJ- JALDHAKA ROAD.



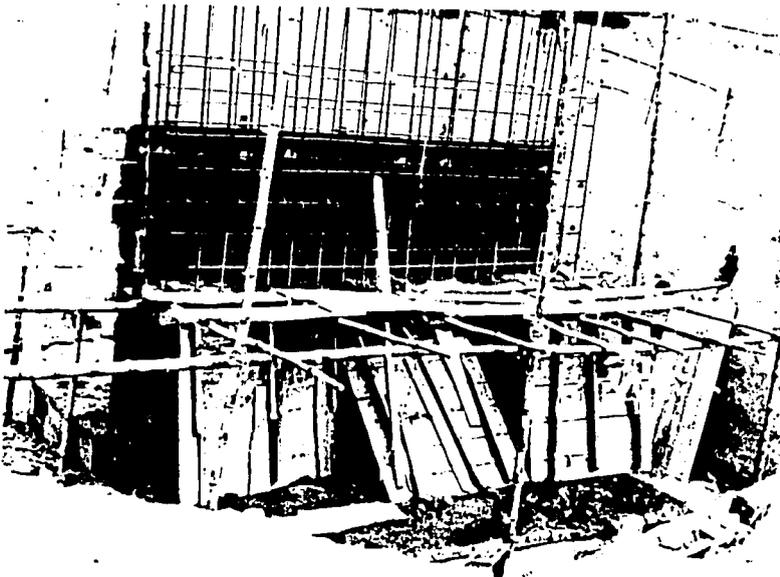
Collecting sample from Mirganj- Jaldhaka Road for checking the dry density and CBR value.

FARILPUR DISTRICT  
CONSTRUCTION ACTIVITIES.

HATKRISHNAPUR- SADARPUR- PIAJKHALI ROAD. (Khaigo Khal Bridge).



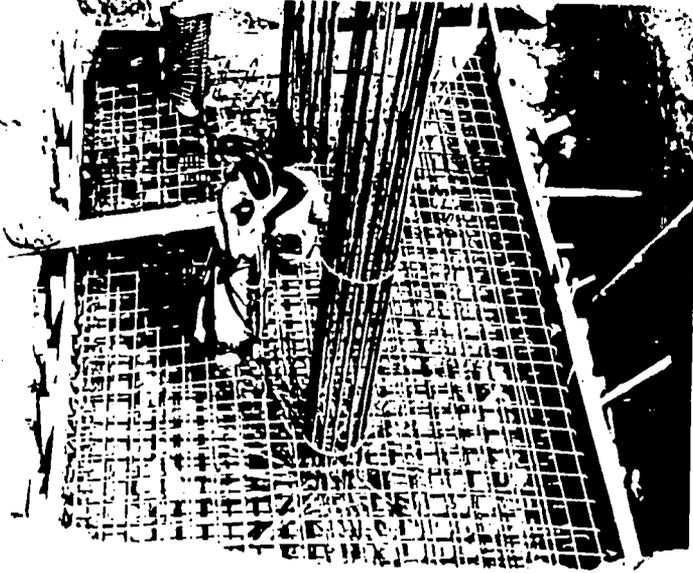
Concrete casting of east abutment (First 4'-6" from top of base).



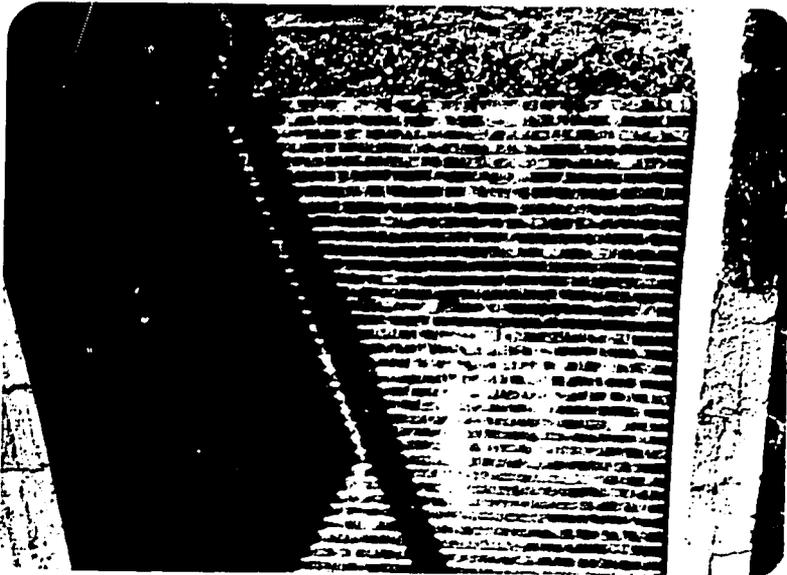
West abutment shuttering has been removed. Concrete curing is in progress.

FARIDPUR DISTRICT  
CONSTRUCTION ACTIVITIES.

BANOGRAM BRIDGE.



Rod binding of north footing and columns.



Brickwork of north pier on existing caisson.

FARIDPUR DISTRICT  
CONSTRUCTION ACTIVITIES.

MADHUKHALI- BALIAKANDI ROAD.



Bituminous carpeting complete for the full length  
of the project.



Compaction of WBM at Group L.

FARIDPUR DISTRICT  
CONSTRUCTION ACTIVITIES.

BALIAKANDI- RAJBARI ROAD.



View of complete section of WBM.



WBM compaction in progress.

FARIDPUR DISTRICT  
CONSTRUCTION ACTIVITIES.

BALIAKANDI- RAJBARI ROAD.



Preparation of Sand cushion and brick soling -  
Group 3.



Preparation of Sand cushion - Group 4.

FARIDPUR DISTRICT  
CONSTRUCTION ACTIVITIES.

BALIAKANDI- RAJBARI ROAD.



Complete section of WBM - Group 5.



Poor condition of sub-grade after heavy rainfall -  
Group 5.

FARIDPUR DISTRICT  
CONSTRUCTION ACTIVITIES.

BALIAKANDI- RAJBARI ROAD.



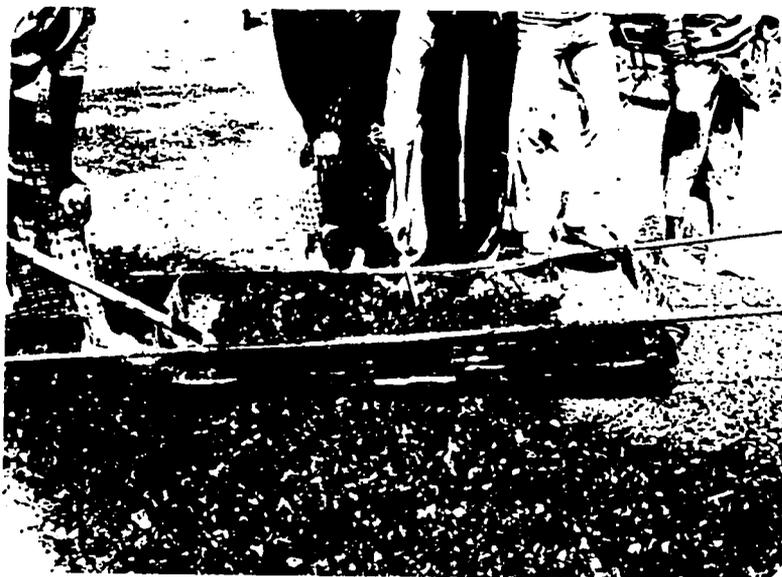
WBM is complete for entire reach of  
Group 6.



WBM is complete for entire reach of  
Group 7.

FARIDPUR DISTRICT  
CONSTRUCTION ACTIVITIES.

BALIAKANDI- RAJBARI ROAD.



Temperature of bituminous premix being checked -  
Group 8. It was found to be satisfactory.

APPENDIX D

P E R S O N N E L .

## CURRENT STATUS OF PERSONNEL.

Sheet 1 of 2.

Title.	Name.	Status.	Comments.
DHAKA OFFICE.			
Chief of Party.	Fred L. Barnes.	On duty 01/03-31/03.	-
Training Adviser.	Gifford E. Rogers.	On duty 01/03-31/03.	-
Specification Engineer.	G.Lugenbeel.	On duty 01/03-31/03.	-
Associate C.O.P.	K.M.Huque.	On duty 01/03-31/03.	Total 08 working days.
Soil/Materials Lab. Training Specialist.	M.Majid.	On duty 01/03-31/03.	Total 16 working days.
Structural Engineer.	M.A.Aziz.	On duty 01/03-31/03.	Total 7 working days.
Project Engineer/ Training Coordinator.	A.H.M.Abdullah.	On duty 01/03-31/03.	-
Office Engineer.	G.S.M.Habibur Rahman.	On duty 01/03-31/03.	-
Asstt.Engineer.	Dr. Kamruzzaman.	On duty 01/03-31/03.	Total 5 working days.
Laboratory Engineer.	A.Islam.	On duty 01/03-31/03.	-
Draftsman.	Nazimuddin Ahmed.	On duty 01/03-31/03.	-
Draftsman.	A.Majid.	On duty 01/03-31/03.	-
Administrative Assistant.	Md. Harun.	On duty 01/03-31/03.	-
Accountant.	A.K.M.A.Taher.	On duty 01/03-31/03.	-
A/cs. Assistant.	M.M. Mohiuddin.	On duty 01/03-31/03.	-
Secretary.	Fahmida Chowdhury.	On duty 01/03-31/03.	-
Typist.	Andre Sarker.	On duty 01/03-31/03.	-
Driver.	E.Hossain.	On duty 01/03-31/03.	-
Driver.	F.Rahman.	On duty 01/03-31/03.	-
Messenger.	Jamaluddin.	On duty 01/03-31/03.	-
Guard.	S.A.Khelifa.	On duty 01/03-31/03.	-
Guard.	Babul.	On duty 01/03-31/03.	-
Caretaker.	Mokfaruddin Skr.	On duty 01/03-31/03.	-
Cleaner.	Anwara.	On duty 01/03-31/03.	-
Gardener.	N. Zaman.	On duty 01/03-31/03.	-
FARIDPUR.			
Resident Engineer.	N.Ziegler.	On duty 01/03-31/03.	-
Assistant Resident Engineer.	A.N.M.R.Habib.	On duty 01/03-31/03.	-
Asstt.Engineer.	A.Z.M.Amirul Islam.	On duty 01/03-31/03.	-
Inventory Engineer.	Shah A. Newaz.	On duty 01/03-31/03.	-
Laboratory Technici- an.	Mizanur Rahman.	On duty 01/03-31/03.	-
Surveyor.	Tajul Islam.	On duty 01/03-31/03.	-
Sub-Asstt.Engineer.	S.Afrad.	On duty 01/03-31/03.	-
Sub-Asstt.Engineer.	A. Sayed.	On duty 01/03-31/03.	-
Sub-Asstt.Engineer.	S. Islam.	On duty 01/03-31/03.	-
Draftsman.	M.Rahman.	On duty 01/03-31/03.	-
Office Manager/ Accountant.	A.B.H.Kamaluddin.	On duty 01/03-31/03.	-
Secretary/Typist.	K.R.Faruk.	On duty 01/03-31/03.	-
Driver.	B.A.Mollah.	On duty 01/03-31/03.	-
Driver.	N.Ali.	On duty 01/03-31/03.	-
Messenger.	S.Alam.	On duty 01/03-31/03.	-
Gardener.	J.K.Shill.	On duty 01/03-31/03.	-
Guard.	N.Khan.	On duty 01/03-31/03.	-
Guard.	I.Ali.	On duty 01/03-31/03.	-

## CURRENT STATUS OF PERSONNEL.

Sheet 2 of 2.

## RANGPUR.

Resident Engineer.	R. Andres Tavel.	On duty 01/03-31/03	-
Assistant Resident Engineer.	S.S. Ahmed.	On duty 01/03-31/03	-
Assistant Engineer.	M.A. Samad.	On duty 01/03-31/03	-
Sub-Assistant Engineer.	N.K. Das.	On duty 01/03-31/03	-
Sub-Assistant Engineer.	A.B.M. Zahiruddin.	On duty 01/03-31/03	-
Sub-Assistant Engineer.	Alauddin.	On duty 01/03-31/03	-
Laboratory Technician.	B. Hossain.	On duty 01/03-31/03	-
Surveyor.	Z. Abedin.	On duty 01/03-31/03	-
Draftsman.	S. Hossain.	On duty 01/03-31/03	-
Office Manager/ Accountant.	A.H. Majumdar.	On duty 01/03-31/03	-
Typist.	R. Kabir.	On duty 01/03-31/03	-
Messenger.	A.F.M.M. Haque.	On duty 01/03-31/03	-
Driver.	Mahbubur Rahman.	On duty 01/03-31/03	-
Guard.	A. Rahman.	On duty 01/03-31/03	-
Guard.	H. Hossain.	On duty 01/03-31/03	-
Caretaker.	G.C. Das.	On duty 01/03-31/03	-
Cleaner/Gardener.	Rashida Begum.	On duty 01/03-31/03	-

## SYLHET.

Resident Engineer.	Alex E. Nielson.	On duty 01/03-31/03	-
Assistant Resident Engineer.	K.M. Hasan.	On duty 01/03-31/03	-
Sub-Asstt. Engineer.	N. Nabi.	On duty 01/03-31/03	-
Sub-Asstt. Engineer.	M.A. Sobhan.	On duty 01/03-31/03	-
Sub-Asstt. Engineer.	K.S. Ahmed.	On duty 01/03-31/03	-
Surveyor.	Aminul Karim.	On duty 01/03-31/03	-
Surveyor.	Abu Musa Mia.	On duty 01/03-31/03	-
Laboratory Technician.	H.N. Siddique.	On duty 01/03-31/03	-
Laboratory Technician.	Amjadul Hoque.	On duty 01/03-31/03	-
Draftsman.	M. Giasuddin.	On duty 01/03-31/03	-
Office Manager/ Accountant.	Azizul Haque.	On duty 01/03-31/03	-
Typist.	A.K.M. Munir Ahmed.	On duty 01/03-31/03	-
Driver.	Fakhrul Islam.	On duty 01/03-31/03	-
Messenger.	Elias Ali.	On duty 01/03-31/03	-
Guard.	A.A. Jamadar.	On duty 01/03-31/03	-
Guard.	S. Alam.	On duty 01/03-31/03	-
Cleaner/Gardener/ Caretaker.	Ahmed Miah.	On duty 01/03-31/03	-

APPENDIX E

MONTHLY FINANCIAL STATEMENT.

121

SUMMARY FISCAL REPORT

Willbur Smith And Associates, Inc.,  
ZILA ROADS MAINTENANCE AND IMPROVEMENT PROJECT.

(USAID CONTRACT NO. 388-0056-02-HCC)

Project Components.	Budget amount.		Previous expenditures.		Expenditures- Current reporting- March, 1985.		Cumulative expenditures.	
	S. Dollars.	Taka.	S. Dollars.	Taka.	S. Dollars.	Taka.	Dollars.	Taka.
1. Technical assistance. ... ..	2,709,030	22,715,634	2,091,563	15,252,736	90,101	665,950	2,181,664	15,928,586
2. Equipment. ... ..	674,299	-	55,295	-	22,100	-	78,395	-
3. <u>Training US-AID</u> <u>EDG</u> ... ..	300,000	<u>1,110,850</u> 394,500	63,240	1,017,818	15,819	48,237	79,059	1,065,055
4. Road Maintenance Financed by EDG. ... ..	-	23,095,800	-	-	-	-	-	-
5. Road Development Fund- <u>US-AID</u> <u>EDG</u> ... ..	3,949,182	-	-	34,075,915	-	4,641,445	-	38,717,351
	-	35,629,050	-	-	-	-	-	-