

Library



GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH
BANGLADESH AGRICULTURAL DEVELOPMENT CORPORATION



AGENCY FOR INTERNATIONAL DEVELOPMENT

Grant Financed

FERTILIZER DISTRIBUTION IMPROVEMENT - I (388-0024)

ENGINEER CONSULTANT SERVICES FOR CONSTRUCTION
OF BAGGED PRODUCT FERTILIZER WAREHOUSES IN
BANGLADESH-PHASE III

PROGRESS REPORT NO. 22

30 SEPTEMBER 1984



AMMANN & WHITNEY
CONSULTING ENGINEERS
NEW YORK

in association with



WORLDWIDE ENGINEERS LTD.
ARCHITECT-ENGINEERS
DHAKA



STHAPATI SANGSHAD LTD.
ARCHITECTS, ENGINEERS & PLANNERS
DHAKA

TELEPHONES: 232224
237784
237784
CABLE: AMMWIT
DHAKA

AMMANN & WHITNEY
CONSULTING ENGINEERS

AMMANN & WHITNEY
95, MOTIJHEEL C. A.
P. O. BOX 348
DHAKA, BANGLADESH

WAREHOUSES PHASE III

Project Director, BADC
USAID Construction Project
20, Outer Circular Road
Rajarbagh, Dhaka-17

724-4.1.1/2383

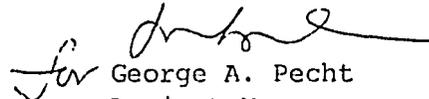
08 September 1984

Subject : Monthly Progress Report No.22
- September 1984

Dear Sir,

In compliance with paragraph B.2 of Appendix A, Scope of Work, of Agreement for Engineer Consultant Services - Warehouses Phase III, fifteen (15) copies of subject Monthly Report are submitted to BADC and six copies to USAID.

Very truly yours
AMMANN & WHITNEY


George A. Pecht
Project Manager

Encl: Eleven (11) copies

cc: Chairman, BADC w/encl. (1)
Member-Director (Irri), BADC w/encl. (1)
Manager (Storage) BADC w/encl. (1)
Chief Engineer (C) BADC w/encl. (1)
Mr. David E. Warner, PO, AID/Dhaka w/encl. (6)
File 724-1.4.2 w/encl.

AMMANN & WHITNEY
Consulting Engineers

FERTILIZER WAREHOUSES - PHASE III

Monthly Progress Report No.22
Month of September 1984

TABLE OF CONTENTS

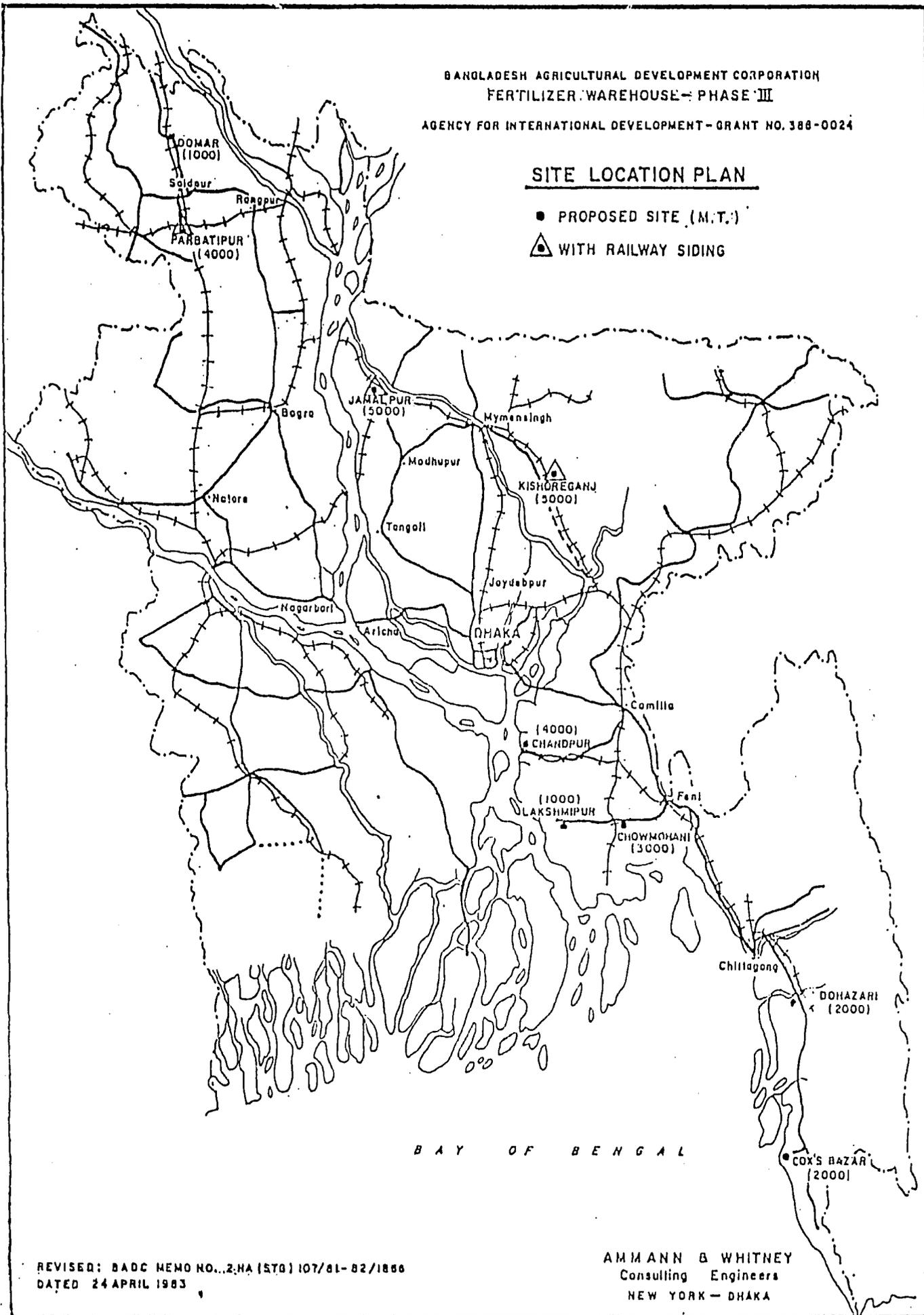
	<u>Page</u>
- SITE LOCATION	
- PROJECT DESCRIPTION	
I. CONTRACTORS' ACTIVITIES - CONSTRUCTION PHASE	
. Summary of Contractors' Activities During Month	I-1
. Construction Contract and Financial Summary	I-4
. Construction Progress - All Sites	I-5
. B1-Kishoreganj	B1-1
. C3-Jamalpur	C3-1
. F1-Dohazari	F1-1
. F3-Cox's Bazar	F3-1
. H2-Chowmuhani	H2-1
. H3-Lakshmipur	H3-1
. I4-Chandpur	I4-1
. O5-Parbatipur	O5-1
. L4-Domar	L4-1
II. CONSULTANT'S ACTIVITIES	
A. FINANCIAL-PROGRESS SCHEDULE	II-1
B. ADMINISTRATION	
1. Consultant's Agreement	II-2
2. Expatriate Staff	II-2
3. Contract Administration	II-2
4. Meetings	II-2
5. Supporting Bangladesh Personnel	II-3
6. Project Expenditures	II-4
7. Billing and Payment	II-4
8. Reports	II-4
C. TECHNICAL	
1. Summary of Consultant's Activities During This Month	II-5
2. Railway Sidings	II-7

2

BANGLADESH AGRICULTURAL DEVELOPMENT CORPORATION
FERTILIZER WAREHOUSE - PHASE III
AGENCY FOR INTERNATIONAL DEVELOPMENT - GRANT NO. 388-0024

SITE LOCATION PLAN

- PROPOSED SITE (M.T.)
- ▲ WITH RAILWAY SIDING



REVISED: BADC MEMO NO. 2/HA (STG) 107/81-82/1886
DATED 24 APRIL 1983

AMMANN & WHITNEY
Consulting Engineers
NEW YORK - DHAKA

PROJECT DESCRIPTION

PROJECT : Construction of Bagged Product Fertilizer Warehouses
in Bangladesh - Phase III

EMPLOYER : Bangladesh Agricultural Development Corporation

FINANCED : United States Agency For International Development
Under Grant
Fertilizer Distribution Improvement-I (388-0024)

ENGINEER : Ammann & Whitney
Consulting Engineers
New York Dhaka

LIST OF SITES AND TONNAGE

<u>NAME OF SITE</u>	<u>TONNAGE</u>	<u>NAME OF DISTRICT</u>	<u>SIZE OF GODOWN</u>
B1 KISHOREGANJ	5000	MYMENSINGH	90'x 300' (27,000 sft)
C3 JAMALPUR	5000 (3500+1500)	JAMALPUR	120'x150'; 90'x90' (26,000 sft)
F1 DOHAZARI	2000	CHITTAGONG	90'x 120' (10,800 sft)
F3 COX'S BAZAR	2000	CHITTAGONG	90'x 120' (10,800 sft)
H2 CHOWMUHANI	3000	NOAKHALI	90'x 180' (16,200 sft)
H3 LAKSHMIPUR	1000	NOAKHALI	60'x 90' (5,400 sft)
I4 CHANDPUR	4000	COMILLA	120'x 180' (21,600 sft)
O5 PARBATIPUR	4000	DINAJPUR	90'x 240' (21,600 sft)
TOTAL	26,000 M.T.		139,500 sft
<u>Contract Terminated</u>			
L4 DOMAR	1000	RANGPUR	60'x 90' (5,400 sft)

I. CONTRACTORS' ACTIVITIES

CONSTRUCTION PHASE

1. Summary of Contractors' Activities

The Eid holidays and some heavy rain in September continued to slow down the work at most sites. At Chandpur the Meghna estuary is still at a very high level even at the end of September. At all other sites the flooding has receded and no delays due to flooding have to be anticipated for October except possibly for Chandpur.

There seems to be an improvement in the amount of work done and the preparation for the godown work due to the better weather and the removal of the surcharge at some sites.

At two sites, Parbatipur and Kishoreganj, the slow pace of activities continues even though these sites are way behind schedule. The contractors make no attempts to attain some progress. At Parbatipur the surcharge is not even finished. Repeated meetings with the contractor's Managing Director and letters to the firm have elicited more promises but no action. No realistic date for the surcharge completion can be given at this time. At Kishoreganj no work was done during two weeks and when work was done no or an insufficient amount of skilled labor were at the site to perform the work on hand. At both sites there were only part time field engineers lacking in authority and management ability to execute the work at hand.

- . Kishoreganj: National Construction & Consult is one the contractors furthest behind in his work. He chose to practically close down 14 days for Eid, not to have skilled labor at the site to build forms. His Field Engineer was absent for half of the month and at one time the work stopped for lack of cement. Nobody could be located to purchase some. For these reasons little work was done during this month on Ancillary Buildings R2 & R3. Some masons were working on the boundary wall but no carpenters were available to prepare the coping. The engineer notified the contractor repeatedly to correct the situation with little response. He had to threaten the contractor that the replacement of earth at the site would be done by the Engineer at the contractor's expense because the contractor delayed to replace removed earth. Not the slightest preparation has been made by the contractor for the godown work even though the surcharge is scheduled to be removed by 10.10.84.
- . Jamalpur: The surcharge on the 3,500 T godown was released for removal on 3.9.84. Most of the surcharge was removed and 13 footings were cast this month. On the Ancillary Buildings R2 and R3 about one story of each building was completed in brick and concrete. The footings for R1 were excavated. The flood water has receded and the contractor seems to go ahead with the work on hand.

- . Dohazari: The godown surcharge was removed. It is being used to fill other areas. The contractor excavated foundations and placed the first footings for the warehouse.

The Ancillary Building R1 has been finished up to the first lintel beam. The foundation walls for building R2 have been laid. A lack of masons and other skilled workers prevented the contractor to proceed with full speed. More work could have been accomplished if the contractor would have sent more skilled workers to the site.

- . Cox's Bazar: The Contractor managed to attain 46% completion for work in progress. The filling of the godown was basically completed. The columns and shear walls of the warehouse are about 65% done. The contractor prepares the forming of the godown roof. Progress was made to complete the structures for the Ancillary Buildings. Their finishing work remains to be done. The preparation for it could be planned better.

This site is further ahead than any other except Lakshmipur which is smaller in volume.

- . Chowmuhani: The surcharge loading for the godown was completed on 25.9.84. The surcharge period is anticipated to last 30 days. The work was slowed down by rains and the flooded condition of the site. The flood has receded and the contractor is now building an access road around the godown to reach the area of the Ancillary Buildings to continue filling there and to start to construction of these buildings.

The Contractor's failure to collect specified fill material during the dry period has been the reason for the delay in completing the surcharge work.

- . Lakshmipur: There was a remarkable pick up in the contractor's activities this month. Rain, Eid and hartal caused delays but Technocon brought acceptable bricks to the site and supplied all necessary fill material, skilled carpenters, formed the canopies and columns, bottom vents and interior footings were cast.

Some minor work on the Ancillary Building was done.

- . Chandpur: The Contractor continued with godown construction, filling to floor level, casting columns, building shear walls and placing two canopies. The work could be accelerated with more masons and preparation for roof forming.

The high water level of the river, further rains and the Eid holidays slowed down the work. The site of the R1 building is still under water. The removal of existing structures and retaining wall have not been finished. The godown was therefore the only area where the contractor could work.

- . Parbatipur: The Contractor has been working on the surcharge since 4 months now. While continuing bad weather was a contributing factor for the slow progress the main cause continues to be the bad management of the contractor or lack of effective management. The contractor's site engineer is in charge of another job in Parbatipur in violation of the specification which require his full time superintendence. The Consultant has asked the Contractor, in writing, to depute the Site Engineer full time. Repeated warning about the lack of management and slow progress seem to make no impression on the contractor.

Parbatipur - cont'd

The progress on ancillary buildings R1 and R2 is as slow as the work on the surcharge, hardly worth mentioning for this month. It takes more than a month to do the brickwork for one story of both buildings. No other work was undertaken by the contractor during this month.

Contractor's Activities

30 September 1984

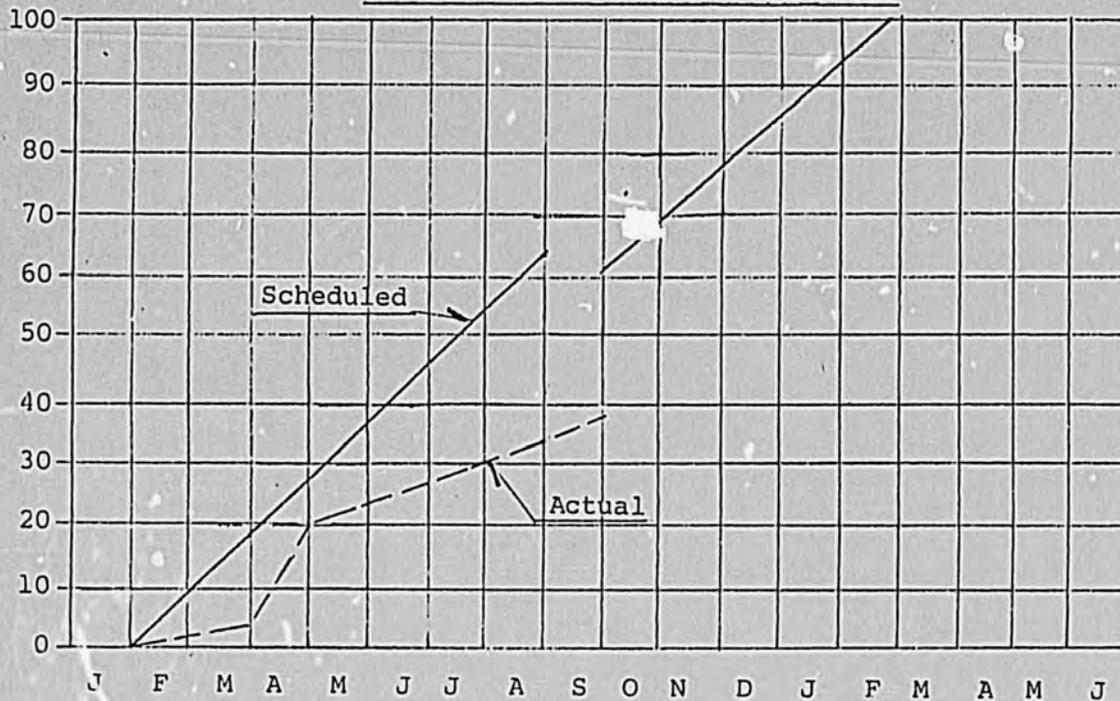
CONSTRUCTION
CONTRACT AND FINANCIAL SUMMARY

<u>Invitation No.</u>	<u>Site</u>	<u>Contractor</u>	<u>Contractor Amount (Tk)</u>	<u>Last Invoice No.</u>	<u>Accumulated Amount (Tk)</u>	<u>Accumulated Payments (Tk)</u>
1	B1-Kishoreganj	National Construction & Consult Limited	1,98,40,012.82	B1-1	21,57,900.00	21,57,900.00
2	C3-Jamalpur	Mostafa Brothers (Pvt) Ltd.	1,76,94,451.01	C3-02	40,77,252.23	40,77,252.23
3	F1-Dohazari	Eastern Engineers Consortium Limited	1,55,48,978.95	F1-02	38,86,789.83	38,86,790.10
4	F3-Cox's Bazar	Builders the Best Ltd.	99,64,470.85	F3-01	29,70,416.94	29,40,711.36
5	H2-Chowmuhanj	Technocon Limited	1,41,20,342.60	H2-01	48,07,208.16	48,07,208.16
6	H3-Lakshmipur	Technocon Limited	55,91,275.35	H3-02	19,88,767.68	19,88,767.68
7	I4-Chandpur	Fazle Azim Engrs. Ltd.	1,70,67,822.35	I4-03	47,28,455.98	47,28,455.98
9	O5-Parbatipur	Elite Engineers Ltd.	1,70,02,196.40	O5-02	43,58,496.72	43,57,821.71
		Total	Tk. 11,68,29,550.33 (\$ 4,697,609.58)		289,75,287.54 24.8%	289,44,907.22
8	L4-Domar	M.S.Khan & Heirs Ltd.	74,99,255.58		Contract Terminated	

I-4

8

CONSTRUCTION PROGRESS - ALL SITES



	F	M	A	M	J	J	A	S	O	N	D	J	F	Weighted Percent	Project % Compl.
Kishoreganj	8 0	18 1	27 20	36 20	45 20	54 26	63 28	66 33	74	84	92	99	100	16.97	5.6
Jamalpur	8 0	18 2	27 18	36 19	45 21	54 25	63 31	66 36	74	84	92	99	100	15.15	5.5
Dohazari	8 0	18 1	27 21	36 24	45 32	54 32	63 34	66 39	74	84	92	99	100	13.31	5.2
Cox's Bzr.	2 0	12 1	22 27	32 37	41 42	51 36	61 41	60 51	67	76	85	94	100	8.53	4.4
Chowmuhani	2 0	12 1	22 13	32 18	41 33	51 33	61 34	60 39	67	76	85	94	100	12.09	4.7
Lakshmipur	2 0	12 8	22 30	32 36	41 39	51 39	61 43	60 51	67	76	85	94	100	4.79	2.4
Chandpur	2 0	12 1	22 11	32 18	41 26	51 29	61 34	60 38	67	76	85	94	100	14.61	5.6
Parbatipur	2 0	12 1	22 17	32 17	41 27	51 28	61 29	60 30	67	76	85	94	100	14.55	4.4

* Corrected

Total 37.8
 Last Month 34.2

CONSTRUCTION PERCENT COMPLETION

Site	- A - SITE DEVELOPMENT	- B - WAREHOUSE	- C - ANCILLARY BUILDINGS	- D - WATER SUPPLY SANITARY	- E - ELECTRICAL	TOTAL
Kishoreganj	69%	0%	15%	5%	2%	27% 4.6%
Jamalpur	56%	5%	28%	3%	3%	23% 3.5%
Dohazari	58%	0%	9%	3%	0%	29% 3.9%
Cox's Bazar	64%	38%	48%	17%	8%	46% 3.9%
Chowmuhani	52%	0%	0%	5%	0%	21% 2.5%
Lakshmipur	42%	30%	80%	10%	7%	36% 1.7%
Chandpur	41%	30%	0%	3%	0%	26% 3.8%
Parbatipur	30%	0%	29%	7%	0%	20% 2.9%

Overall Project Completion (Work Items Only) = 26.8%

9-1

10

30 September 1984

INVITATION NO.1 : B1-KISHOREGANJ

CONTRACTOR : National Construction & Consult Ltd.

Total Contract Price	: Tk. 1,98,40,012.82	Date of Contract	: 16.01.84
Change Order	: Tk. —	Site Handed Over	: 29.01.84
Revised Contract Price	: Tk. 1,98,40,012.82	Notice To Proceed	: 02.02.84
Payments To Date	: Tk. 21,57,900.00	Scheduled Completion	: 02.02.85 (365)
Retention To Date	: Tk.	Elapsed Time	: 242 days 66 %
L/Com. No.	: 388-002403	% Completion	
Date of L/Com.	: 31.01.84	Scheduled Actual	
Issue Date of L/Com.	: 02.02.84	This To Date This To Date	
Amount of L/Com.	: Tk. 1,98,40,012.82 (\$797,885.00)	8 %	66%
L/Com. Amendment No.1	: 13.02.84	Work	: 2% 27%
Performance Guarantee	: BCCI LG 84/75 Tk. 19,84,002	Material	: — 6%
CAR/PL Insurance	: DAC/CAR/P-09/4/84 30.04.84		

1.0 Site Key Personnel

Engineer	: Field Engineer	- A.H. Nazrul Islam
	Inspector	- Zulfikar Ali
	Asst. Technician	- Kamrul Hossain
Contractor	: Site Engineer	- Faizur Rahman
	SAE	- Abdul Zabbar
		Nur Mohammad
		Mostafa Kamal

2.0 Contractor's Activities

The contractor worked on Ancillary Buildings and boundary wall. The brick work upto lintel at the ground floor was done on R2 and R3. The filling for the public toilet and the guard house was done. Work on the boundary wall continued. The contractor replaced soil taken from the site which was put in the surcharge.

	<u>This Period</u>	<u>To Date</u>
A. Site Development	9%	69%
A1 Mobilization and Demobilization	2%	88%
A2 Preparation of Site	1%	100%
A4 Excavation	-	95%
A6 Filling with Imported Material (Select Fill)	-	100%
A10 Boundary Wall - Type A	24%	61%
A21 Surcharge For Preloading	-	100%
C. Ancillary Buildings	7%	15%
C1 Brick Soling	-	28%
C2 Plain Concrete	-	30%
C3 Bricks in Foundations	-	62%
C4 DPC	-	67%
C5 Brick work above P.L.	22%	32%
C6 Reinforced Concrete	7%	7%
C9 Reinforcing Steel	10%	10%

D. Water Supply, Sanitary and Plumbing	3%	5%
D7 Inspection Pit	-	22%
D8 Septic Tank	-	25%
D9 Soak Well	-	14%

E. Electrical 2% 2%

2.1 Approved Materials On-Site

Portland Cement	-	13 ton
Reinforcing Steel, Deformed	-	68 ton
Bricks, 1st Class	-	22,000 nos.
Boulders	-	7,500 cft
Sand, Coarse	-	10,000 cft

2.2 Major Equipment On-Site

- 1- Concrete Mixer
- 2- Water Pump
- 1- Vibrator

3.0 Problems and Delays

- . Railway has agreed to hand over 0.62 acre of land to BADC. Require demarcation of the land by railway estate office. Boundary wall work pending along railway land.
- . Abandoned railway siding track to old Sugar Mill to be removed by BR.

4.0 Action Required

- | | | |
|------------|---|---|
| BADC | : | . Finalize location of right-of-way with BR (/1610, 15.04) |
| | | . Follow-up with BR for removal of abandoned rail road ties and track. |
| Contractor | : | . To arrange sufficient labour, material including formwork to expedite work. |
| | | . Provide electrician at site. |
| | | . Obtain incoming power line. |

5.0 Claims

Letter of 18.9.84 : Claim for time extension due to various causes.

6.0 Work Scheduled Next Month

- . Filling around and inside ancillary buildings
- . Continue work on buildings R2 and R3
- . Continue work on boundary walls
- . Start select fill for approach road
- . Prepare forms and reinforcing for godown

17

7.0 DELETED

8.0 Financial

<u>Invoice No.</u>	<u>Item</u>	<u>Amount Invoice</u>	<u>Payment</u>	<u>USAID Voucher No.</u>
NCC-01/84	Material Prepayment	Tk.21,57,900	Tk.21,57,900	1451

9.0 General

Even though the contractor is way behind his schedule be closed down the works for 14 days during the Eid holidays. There was very little work and no push on the Ancillary Buildings which should be basically completed by now since the contractor has no other work at the site at present. But he did not find it necessary to bring skilled laborers to the site for form work and bar bending even though he was repeatedly reminded to do so by the engineer. There were no skilled workers to do the coping for the boundary wall. No Field Engineer was present for half of the month. At one time no cement was at the site to continue the brick work and nobody in Dhaka could be located to purchase cement.

CONSOLIDATED MATERIALS TESTING REPORT

Project : Fertilizer Warehouses Phase III

For the month Sept. 1984

Site : Kishoregonj

Material/Test	Spec. No.	No. of Tests	No. Approved	No. Dis-Approved	Remarks/Requirement
A. Select Fill	2E.01-a	4	2	2	F.H. 1.5
B. Concrete Sand	3A.02-b.1	1	-	1	
C. Bricks: Frogmark: GMB	4A.02	5	4	1	
G. Field Density Tests: Select Fill	2E.01	8	6	2	

No. of test at
3 days 7 days 28 days

I. Concrete:					
Compressive	3A.03	-	2	13	
	3A.05				

Average 28 day Strength of Concrete:

1. R2 Foundation C.C. - 2455 PSI (Av. of 3 cylinder) Not accepted.
2. Boundary wall foundation cc-3321 PSI (Av. 10 cylinder)

INVITATION NO. 2 : C3-JAMALPUR

CONTRACTOR : Mostafa Brothers (Pvt) Ltd.
 Total Contract Price : Tk. 1,76,94,451.01
 Change Orders : Tk.
 Revised Contract Price : Tk. 1,77,81,051.00
 Payments To Date : Tk. 40,77,252.23
 Retention To Date : Tk. 1,86,051.47
 L/Com. No. : 388-002404
 Date of L/Com. : 31.01.84
 Issue Date of L/Com. : 02.02.84
 Amount of L/Com. : Tk. 1,76,94,451.01
 (\$711,599.00)
 L/Com. Amendment No.1 : 13.02.84
 Performance Guarantee : Indosuez PB/TK/010
 Tk.17,69,446
 Insurance : CAR/PL : DAC/CAR/P-8/84
 Fidelity Bond : Indosuez PG/TK/018
 Tk. 8,84,720

Date of Contract : 12.01.84
 Site Handed Over : 19.01.84
 Notice To Proceed : 02.02.84
 Scheduled Completion : 01.02.85(365)
 Elapsed Time: 242 days 66 %

% Completion			
Scheduled		Actual	
This Period	To Date	This Period	To Date
8%	66%	5 %	36 %
	Work	: 5%	23 %
	Material	: -	13 %

1.0 Key Site Personnel

Engineer : Field Engineer Inspector Technician Contractor : Project Director Field Engineer	- Mostahar Ali - Sikander Ali - A. Rashid - A.B.M. Siddique Rahman - Md. Atikulla
---	---

2.0 Contractor's Activities

This Period To Date

The surcharge on the 3,500 T godown was released for removal on 3.9.84. About 95% of this surcharge has been removed and 13 footings have been cast during this month even though heavy rains and the Eid holidays hampered the work.

On the ancillary building R2 and R3 about one story at each building was placed and the excavation for the R1 was started as soon as the flooding receded. Works on the boundary wall continued.

A. Site Development	8%	56%
A1 Mobilization and Demobilization	6%	97%
A2 Preparation of Site	-	98%
A4 Excavation	20%	100%
A6 Filling with Imported Material (Select Fill)	-	91%
A10 Boundary Wall - Type A	3%	69%
A21 Surcharge For Preloading	-	100%
B. Warehouse	5%	5%
B2 R.C. Footings	25%	25%
B11 Reinforcing Steel	5%	5%

C. Ancillary Buildings	12%	28%
C1 Brick Flat Soling	-	29%
C2 Plain Concrete including concrete floor slab	-	31%
C3 Brickwork in foundation	-	67%
C4 Damp-proof Course	-	68%
C5 Brickwork above PL	50%	58%
C6 Reinforced Concrete	20%	36%
C7 Reinforcing Steel	26%	44%
D. Water Supply, Sanitary	-	3%
D6 R.C.C. Sewer Pipe	-	10%
D8 Septic Tank, Type B	-	20%
D9 Soak Well	-	20%
E. Electrical	2%	3%
E1. 3/4" Ø Conduit	23%	30%

2.1 Approved Materials On-Site

Portland Cement	- 15 T
Reinforcing Steel, Deformed	- 97 T
Bricks, 1st Class	- 5,50,000 nos.
Boulders	- 7,000 cft.
Sand, Coarse	- 14,000 cft
Sand, Fine (For Filling)	- 25,000 cft

2.2 Major Equipment On-Site

2- Water Pump (1-electrical; 1-diesel)
2- Concrete Mixer
2- Vibrator

3.0 Problems and Delays

Railway land not officially handed over to BADC.

4.0 Action Required

BADC : . Take over land from BR for railway siding.

Contractor : . Obtain incoming power line

5.0 Claims (this month)

Claim for time extension. Letter of 15.9.84

6.0 Work Scheduled Next Month

Continue casting godown footings, grade beams and columns. Place roofs for ancillary buildings R2 & R3 and build foundations and walls for R1.

7.0 DELETED

8.0 Financial

<u>Invoice</u>	<u>Item</u>	<u>Amount Invoice (Tk)</u>	<u>Payment (Tk)</u>	<u>USAID Voucher No.</u>
-	Mobilization Advance	8,84,720.00	8,84,720.00	1059
C3-01	Material Payment	13,27,696.00	13,27,696.00	1226
C3-02	Progress Payment	18,64,836.23	18,64,836.23	1607
		<u>Tk. 40,77,252.23</u>		

9.0 General

Despite more rain the contractor now accomplished a good deal of work.

10.0 Variation (Overrun or Underrun)

Total Contract amount	Tk. 1,76,94,451.00
A10 Boundary Wall Type A	1,13,400.00
Rev. Estimated Total Contract Price	<u>Tk. 1,77,81,051.00</u>

CONSOLIDATED MATERIALS TESTING REPORT

Project : Fertilizer Warehouses Phase III

For the month Sept. 1984

Site : Jamalpur

Material/Test	Spec. No.	No. of Tests	No. App- roved	No. Dis- Approved	Remarks/Requiremen
A. Select Fill	2E.01-a	2	2	0	Min. F.M. = 1.5
B. Concrete Sand	3A.02-b.1	1	1	0	
C. Mortar Sand	4A.03	1	1	0	
D. Concrete Coarse Aggregate	3A.02-b.2	2	1	1	

No. of test at
3 days 7 days 28 days

E. Concrete:					
Compressive	3A.03		6	21	
Strength Test	3A.05	-			

Average 28 day Strength of Concrete:

1. R2 Bld. Column Footing - 3944 PSI (Av. of 3 cylinder)
2. " " " 3rd pour - 3252 PSI (" " ")
3. R3 1st floor slab - 3288 PSI (" " ")
4. R3 Stair case - 3192 PSI (" " ")
5. R3 Lintel & Sunshade - 3264 PSI (" " ")
6. R2 " " - 3501 PSI (" " ")



SCHEDULE OF EVENTS

FOR THE PERIOD OF 1.10.84- 31.10.1984.

Item No. Spec.No. Description of Works. Time Period Remarks.

Bldg R₁

A ₄	2D.	Excavation of F/Trenches	3days	01.10.84 to 03.10.84	
A6	2E	Filling with Imported materials	3 "	04.10.84 to 06.10.84	
C ₁	2G	Brick Flat Soling	1 day	07.10.84 - -	
C ₂	3A	Blane Concrete foundtn.	1 "	08.10.84 - -	
C ₃	4A	Brick work in Foundatn.	3 days	09.10.84 - 11.10.84	
C ₄	7A	D.P.C.	1 day	12.10.84 = -	
C ₅	4A.	B/work above P.L.	4 days	13.10.84 - 16.10.84	
		Preparation of form work for Lintel	3 days	17.10.84 - 19.10.84	
C ₀₉	3A	Reinforce Steel work	2 days	19.10.84 - 20.10.84	
C ₆	3A	Reinforce concrete(Lintel)	2 days	21.10.84 - 22.10.84	
C ₅	4A	B/Work above lintel	3 days	23.10.84 - 25.10.84	

BUILDING R₂ & R₃

C ₁₅	9B	Plastering for ceiling Ground Floor	5 days	5.10.84 - 9.10.84	
C ₁₄	9B	Ceiling Plaster of walls	15 days	5.10.84 - 19.10.84	
		Form work for R ₂ & R ₃ Buildings	6 days	20.10.84 - 25.10.84	
C ₉	3A	Reinforcing Steel works	6 days	21.10.84 - 26.10.84	
C ₆	3A	Reinforce Concrete works	2 days	26.10.84 - 27.10.84	
C ₁₀	6A	Wooden Door Frame	26 days	05.10.84 - 30.10.84	
A6	2E.	Filling with Imported	30 days	01.10.84 - 30.10.84	

WAREHOUSE

B2&B ₃	3A	Reinforce Concrete Footing	30 days	01.10.84 - 31.10.84	
B ₃	3A	Reinforce concrete Column 6 Nos.	14 days	06.10.84 - 20.10.84	
B ₈	4A	B/Work upto P.L.	17 days	15.10.84 - 31.10.84	
A ₁₂	2L	Entrance Gate	5 days	15.10.84 - 19.10.84	
A ₁₆	2W	Public Toilet Complete	25 days	06.10.84 - 30.10.84	
D ₁₉	15A	G.I. water Pipe work.	16 days	16.10.84 - 31.10.84	



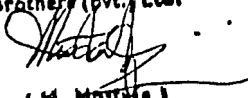
B	23	I5A	Supply install & test 4" dia C.I.R/Water Pipe	10 days	22.10.84	-	31.10.84	0
A	6	2E	Filling with Imported materials (B). Road & Parking area; upto 58:00 E.L.	31 days	01.10.'84	-	31.10.84	

COLLECTION OF MATERIALS.

Bricks ....	....	1.5 lacs.
Boulders...	...	10,000 cft.
Cement ...	...	100 MT.
Wooden Frames ...	...	100 cft.
Wooden Shutters ...	...	200 cft.
M.S. D Formed Bar ...	...	50 MT.

N.B. This programme of works will remain valid if nature permits and the progres payment made well in time.

For Mostafa Brothers (Pvt.) Ltd.


(M. Mostafa)
Managing Director.

30 September 1984

INVITATION NO.3 : F1-DOHAZARI

CONTRACTOR : The Eastern Engineers Consortium Ltd.

Total Contract Price	: Tk. 1,55,48,978.95	Date of Contract	: 16.01.84																				
Change Orders	: Tk. -	Site Handed Over	: 26.01.84																				
Revised Contract Price	: Tk. 1,42,19,301.08	Notice To Proceed	: 02.02.84																				
Payments To Date	: Tk. 38,86,780.10	Scheduled Completion	: 01.02.85 (365)																				
Retention To Date	: Tk. 1,86,051.47	Elapsed Time	: 241 days 66%																				
L/Com. No.	: 388-002405	% Completion																					
Date of L/Com.	: 31.01.84	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Scheduled</th> <th colspan="2">Actual</th> </tr> <tr> <th>This Period</th> <th>To Date</th> <th>This Period</th> <th>To Date</th> </tr> </thead> <tbody> <tr> <td>8%</td> <td>66%</td> <td>5%</td> <td>39%</td> </tr> <tr> <td></td> <td>Work</td> <td>4%</td> <td>29%</td> </tr> <tr> <td></td> <td>Material</td> <td>1%</td> <td>10%</td> </tr> </tbody> </table>		Scheduled		Actual		This Period	To Date	This Period	To Date	8%	66%	5%	39%		Work	4%	29%		Material	1%	10%
Scheduled		Actual																					
This Period	To Date	This Period	To Date																				
8%	66%	5%	39%																				
	Work	4%	29%																				
	Material	1%	10%																				
Issue Date of L/Com.	: 02.02.84																						
Amount of L/Com.	: Tk. 1,55,48,978.95 (₹625,317.00)																						
L/Com. Amendment No.1	: 13.02.84																						
Performance Guarantee	: Agrani 001/84 Tk.15,54,900																						
Insurance	:																						

1.0 Key Site Personnel

Engineer	: Field Engineer Technician Inspector	- Shahid Uddin Ahmed - Meer Khurshid Ali - Amirul Islam
Contractor	: Project Engineer Site Manager Site Supervisor Site Supervisor Site Supervisor	- Khondakar Anwar Hossain - Afzal Hossain Khan - Abdul Jalil - Md. Shahjahan - Hossainuddin Ahmed

2.0 Contractor's Activities

The godown surcharge was removed. The filling of the parking area and the area for building R2 and R3 progressed. The first godown footings were cast.

The brick and concrete work on the Ancillary Buildings R1 and R2 continue.

	<u>This Period</u>	<u>To Date</u>
A. Site Development (Adjusted % due to variations)	-	58%
A1 Mobilization & Demobilization	-	86%
Completed: Engineer's Field Office, temporary access road, electrical & water, labor shed, labor toilet, cement storage, contractor's temporary office. Mobilization of equipment.		
A2 Preparation of Site	5%	100%
A4 Excavation (60,890 cft)	15%	93%
A6 Filling with Imported Materials (Select Fill)	-	70%
A10 Boundary Wall, Type A	-	65%
A21 Surcharge For Preloading		100%

B. Warehouse	3%	3%
B2 R.C. Footing	17%	17%
B11 Reinforcing Steel	4%	4%
C. Ancillary Buildings	6%	9%
C1 Brick Flat Soling	16%	28%
C2 Plain Concrete	16%	27%
C3 Brick Work in Foundation	36%	61%
C4 Damp Proof Course	22%	60%
C5 Brick above plinth level	11%	11%
C6 Reinforced Concrete	2%	4%
C9 Reinforcing Steel	3%	5%
D. Water Supply, Sanitary and Plumbing	-	3%
D7 Inspection Pit	-	12%
D8 Septic Tank	-	33%
D9 Soak Well	-	33%

2.1 Approved Materials On-Site

Portland Cement	-	430 bags
Reinforcing Steel, Deformed	-	57 ton
Bricks, 1st Class	-	1,80,000 nos.
Boulders	-	6,000 cft
Sand, Coarse	-	2,500 cft
Sand, Fine (For Filling)	-	45,000 cft

2.2 Major Equipment On-Site

- 1- Pumps
- 1- Concrete Mixer (7.5 cft)
- 2- Vibrators

3.0 Problems and Delays

- . No adequate compaction equipment at site.
- . Insufficient masons & other skilled labor.

4.0 Actions Required

- Contractor : . Obtain compaction equipment
- . Increase masons & skilled workers
 - . Take action to obtain incoming power line

5.0 Claims

- . Letter of 15.9.84 : Claim for time extension for various reasons

6.0 Work Scheduled Next Month

Refer contractor's schedule submitted for October

7.0 DELETED

8.0 Financial

<u>Invoice No.</u>	<u>Item</u>	<u>Amount Invoice</u>	<u>Payment</u>	<u>USAID Vr. No.</u>
F1-01	Material Prepayment	Tk. 27,15,000	Tk.27,15,000	1281
F1-02	Progress Payment	Tk. 11,71,789.83	Tk.11,71,780	1853

9.0 General

Although The Eastern Engineers Consortium made progress in October no effort is made to make up for time lost. With more masons and skilled labor the Ancillary Building could have been driven forward. It seems this job is too far removed from Dhaka and the management of the contractor does not pay enough attention to it. The site engineer does not seem to get enough support.

10.0 Variation (Overruns and Underruns)

Estimated Total Contract Price	Tk. 1,55,48,978.95
A3 Excavation To Waste	(- 1,06,874.50)
A4 Excavation	(- 89,830.87)
A6 Filling with Imported Material (Select)	(- 10,86,002.50)
A21 Surcharge For Preloading	(- 46,970.00)
Revised Total Contract Price	Tk. 1,42,19,301.08

CONSOLIDATED MATERIALS TESTING REPORT

Project : Fertilizer Warehouses Phase III

For the month Sept. 1984

Site : Dohazari

Material/Test	Spec. No.	No. of Tests	No. Approved	No. Dis-Approved	Remarks/Requirement
A. Concrete Sand	3A.02-b.1	2	2	0	
B. Mortar Sand	4A.03	1	1	0	
C. Concrete Coarse Aggregate	3A.02-b.2	1	1	0	
D. Field Density Tests: Select Fill	2E.01	113	99	14	90 & 95% MDD

		<u>No. of test at</u>		
		<u>3 days</u>	<u>7 days</u>	<u>28 days</u>
E. Concrete				
Compressive	3A.03		4	15
Strength Test	3A.05	-		

Average 28 day Strength of Concrete:

1. R1 foundation cc. - 3366 PSI (Av. of 3 cylinder)
2. R1 Building column - 3631 PSI (Av. of 3 cylinder)

SCHEDULE OF EVENTS
FOR OCTOBER 1984

PROJECT: F.W.P.
LOCATION: DOHAZARI-F1
WORK ITEM: SCHEDULE A, B, C, + D.

EVENTS	DESCRIPTION OF WORKS	TIME	SCHEDULE		ACTUAL		REMARKS
		ESTIMATE	START	FINISH	START	FINISH	
1.	<u>SCHEDULE-A</u> Select fills in the east, west and north side including access road area with slope protection.	30 days	1.10.84	30.10.84			This item of works has been started earlier and being confirmed.
2.	<u>SCHEDULE-B (Godown)</u> Footings (Interior & exterior) complete	7 days	1.10.84	7.10.84			Footing casting was started on the last 23th Sept.84.
	Grade beam complete	15 days	1.10.84	15.10.84			
	Columns (Interior & exterior) upto 6' ht. from the top of grade beam	20 days	6.10.84	25.10.84			
	Brick works upto P.C. from the top of grade beam.	20 days	11.10.84	30.10.84			
3.	<u>SCHEDULE-C (Building R-1)</u> 1st floor slab complete including shuttering and casting.	15 days	1.10.84	15.10.84			
	1st floor brick works upto lintel level including lintel & sunshade	20 days	11.10.84	30.10.84			
	<u>(Building R-2)</u> Brick works upto lintel level including lintel & sunshade.	12 days	1/10/84	12/10/84			
	Brick works upto 1st floor level including 1st floor slab casting	15 days	16.10.84	30.10.84			
	<u>(Building R-3)</u> Brick works upto lintel level including lintel & sunshade.	28 days	3.10.84	30.10.84			

N.B. Preparation of form and rebar will be continued as per requirements.

submitted by : The E.E.C. Ltd.

25

30 September, 1984

INVITATION NO.4 : F3-COX'S BAZAR

CONTRACTOR : Builders The Best Ltd.

Total Contract Price : Tk. 99,64,470.85

Change Orders : Tk.

Revised Contract Price : Tk. 104,25,763.57

Payments To Date : Tk. 29,70,416.94

Retention To Date : Tk. 2,24,940.22

L/Com. No. : 388-002406

Date of L/Com. : 31.01.84

Issue Date of L/Com. : 23.02.84

Amount of L/Com. : Tk. 99,64,470.85
(\$400,731.00)Performance Guarantee : Indosuez PB/TK/009
Tk.10,00,000

Insurance : DAC/CAR/P-13/5/84

Date of Contract : 12.01.84

Site Handed Over : 26.01.84

Notice To Proceed : 23.02.84

Scheduled Completion: 23.02.85 (365)

Elapsed Time: 221 days 61 %% Completion

<u>Scheduled</u>		<u>Actual</u>	
<u>This Period</u>	<u>To Date</u>	<u>This Period</u>	<u>To Date</u>
8 %	61 %	10 %	51 %
Work	:	13%	46%
Material	:	-	5%

1.0 Key Site Personnel

Engineer	: Field Engineer	- M.M. Matiur Rahman
	Inspector	- Md. Serajul Islam Khan
	Technician	- Abdul Wahed
Contractor	: Site Engineer	- Zahidul Islam
	Field Engineer	- Abdul Baki Miah

2.0 Contractor's ActivitiesThis Period To Date

The Contractor worked mainly on the warehouse and ancillary buildings. The godown exterior columns were cast completely. The shear wall was completed on the south side and is 12 ft. above grade beam on the north, east and west. The R1 building is upto the 2nd floor lintel level, R2 upto penthouse roof level, R3 upto 1st floor roof slab. The guard house and most of the public toilet were finished.

A. Site Development	9%	64%
A1 Mobilization and Demobilization	-	95%
A2 Preparation of Site	-	95%
A4 Excavation	6%	98%
A6 Filling with Imported Materials (Select Fill)	22%	95%
A10 Boundary wall	-	88%
A15 Guard House	20%	90%
A16 Public Toilet	35%	85%
B. Warehouse	16%	38%
B2 R.C. Footing, Footing Tie Beam	33%	100%
B3 R.C. Column	19%	65%
B7 Reinforced Masonry Wall	25%	65%
B11 Reinforcing Steel	23%	52%

C. Ancillary Buildings (R1,R2 and R3)	15%	48%
C1 Brick Flat Soling	-	43%
C2 Plain Concrete	-	45%
C3 Brickwork in Foundation	6%	100%
C4 Damp Proof Course	5%	100%
C5 Brickwork above P.L.	19%	82%
C6 Reinforced Concrete	29%	67%
C9 Reinforcing Steel	37%	77%
D. Water Supply, Sanitary and Plumbing	4%	17%
D7 Inspection Pits (3 completed)	-	15%
D8 Septic Tank 1 Type B	-	100%
1 Type B	-	50%
D9 Soak Well (3)	10%	95%
D23 4" G.I. Pipe	30%	30%
E. Electrical	8%	8%
E1 3/4" Ø Steel Conduits	85%	85%
E2 PIC Sheated cable	14%	14%

2.1 Approved Materials On-Site

Portland Cement	- 500 bags
Reinforcing Steel, Deformed	- 28 tons
Bricks, 1st Class	- 10,000 nos.
Boulders	- 1,500 cft
Sand, Coarse	- 1,500 cft
Sand, Fine (For Filling)	- 4,000 cft
Pea Gravel	- 500 cft
Lime	- 6 tons

2.2 Equipment On-Site

1- Concrete Mixer (8 cft)
1- Vibrator
1- Water Pump (1 HP)

3.0 Problems and Delays

Over a week got lost due to the Eid holidays.

4.0 Actions Required

BADC : . Finalize land acquisition for access to river.

Contractor : . Obtain incoming power line

5.0 Claims : None

6.0 Work Scheduled Next Month

The Contractor has to form the godown roof and prepare the casting of the roof. The Ancillary Building interior work has to be driven forward.

7.0 DELETED

8.0 Financial

<u>Invoice No.</u>	<u>Item</u>	<u>Amount Invoice</u>	<u>Amount Payment</u>	<u>USAID Voucher No.</u>
F3-01	Progress Payment	Tk.29,70,417	Tk.29,40,711	1854

9.0 General

The work progress is generally good. More attention will have to be paid to the preparation (purchase of materials) for the finishing of the Ancillary Buildings.

10.0 Variation (Overrun and Underrun)

Total contract price	Tk.	99,64,470.85
A4 Excavation	+	12,016.20
A6 Imported Select Fill	+	4,49,276.52
Revised Estimated Total Contract Price	Tk.	1,04,25,763.57

28

CONSOLIDATED MATERIALS TESTING REPORT

Project : Fertilizer Warehouses Phase III

For the month Sept. 1984

Site : Cox's Bazar

Material/Test	Spec. No.	No. of Tests	No. Approved	No. Dis-Approved	Remarks/Requirement
A. Select Fill	2E.01-a	2	2	0	Min. F.M.= 1.5
B. Concrete Sand	3A.02-b.1	5	4	1	2 part Sylhet sand blended with 1 part local sand
C. Mortar Sand	4A.03	4	4	0	1 part Sylhet sand blended with 3 part local sand.
D. Concrete Coarse Aggregate	3A.02-b.2	3	3	0	
E. Bricks: Frogmark: ORC	4A.02	5	5	0	
F. Cement	3A.02-a				
G. Field Density Tests: Select Fill	2E.01	22	20	2	

No. of test at
3 Days 7 days 28 days

H. Concrete: Compressive Strength Test	3A.03 3A.05	-	14	42	
---	----------------	---	----	----	--

Average 28 day Strength of Concrete:

1. Godown column, A5, B5, C5, C1, D2, D3, D4, D5 (2nd lift)-3875 PSI (Av. of 9 cylinder)
2. Godown column, A3(2nd lift)D5,(3rd lift)- 3572 PSI (Av. of 3 cylinder)
3. Godown column, A5,B5 (3rd lift) - 3743 PSI (Av. of 3 cylinder)
4. R3 1st floor lintel & Sunshade - 3443 PSI (Av. of 3 cylinder)
5. Godown R.B. wall concrete core - 3030 PSI (Av. of 6 cylinder)

INVITATION NO.5 : H2-CHOWMUHANI

CONTRACTOR : Technocon Limited	Date of Contract : 12.01.84
Total Contract Price : Tk.1,41,20,342.60	Site Handed Over : 31.01.84
Change Orders : Tk. -	Notice To Proceed : 23.02.84
Revised Contract Price : Tk.1,44,40,694.30	Scheduled Completion: 23.02.85 (365)
Payments To Date : Tk.	Elapsed Time: <u>221</u> days <u>61%</u>
Retention To Date : Tk.	
L/Com. No. : 388-002407	
Date of L/Com. : 31.01.84	
Issue Date of L/Com. : 23.02.84	
Amount of L/Com. : Tk.1,41,20,342.60	
	% Completion
	Scheduled Actual
	This This
	Period To Date Period To Date
Performance Guarantee : Indosuez PB/TK/006	8% 61% 5% 39%
	Tk.14,12,035
Insurance : DAC/CAR/P-07/84	Work 4% 22%
	Material 1% 17%

1.0 Key Site Personnel

Engineer	: Project Engineer	- Y.O. Kim
	Senior Field Engineer	- M.J. Alam
	Inspector	- A.C. Banik
	Technician	- K.L. Nath
Contractor	: Project Engineer	- L.A. Sikdar (Dhaka)
	Site Engineer	- Sk. Rezaul Hoque
	Asstt. Site Engineer	- Md. Jahangir Alam
	Site Manager	- Abdul Kashem

2.0 Contractor's Activities

The surcharge loading for the godown was completed on 25.9.84. A temporary access to the ancillary building site is under construction going around to godown area.

	<u>This Period</u>	<u>To Date</u>
A. Site Development	7%	55%
A1 Mobilization and Demobilization	2%	76%
A2 Preparation of site		100%
A4 Excavation (Refer to 10. Variation)	-	100%
A5b Filling with on site material	-	34%
A6b Filling with imported material	-	100%
A10 Boundary Wall	2%	57%
A16 Public Toilet	2%	72%
A21 Surcharge for Preloading	79%	100%
A23 48 inch R.C. Pipe Culvert	0%	0%
6-8 ft. lengths on site		

	<u>This Period</u>	<u>To Date</u>
D. Water Supply, Sanitary and Plumbing	-	5%
D7 Inspection Pit	-	7%
D8 Septic Tank	-	50%
D9 Soak Well	-	25%

2.1 Approved Material On-Site

Portland Cement	-	5 bags
Reinforcing Steel, Deformed	-	110 M.T.
Bricks, 1st Class	-	1,45,000 Nos.
Boulders	-	10,900 cft.
Sand, Coarse	-	16,400 cft.
Sand, Fine (For Filling)	-	115,000 cft. (to be blended)

2.2 Major Equipment On-Site

- 1- Concrete Mixers
- 1- Vibrator
- 2- Water Pumps

3.0 Problems and Delays

Bad weather continued to slow down the surcharge operation and kept the site under water so that no other work except surcharge filling could be accomplished.

"Sweet" water not available at site. Contractor required to sink deep tubewell.

4.0 Actions Required

- Contractor : . Obtain incoming power line (1358, 14.03)
- . Arrange pressure testing of water supply and sanitary plumbing system.
 - . Develop passage for truck to Ancillary Building at the time of surcharge.

5.0 Claims

Letter of 26.9.84: Claim for time extension and additional payments due to rain, hartal, price raise.

6.0 Work Scheduled Next Month

Build access to ancillary buildings and start construction of ancillary buildings. Prepare for godown construction.

7.0 Deleted

8.0 Financial

<u>Invoice No.</u>	<u>I t e m</u>	<u>Amount Invoice(Tk.)</u>	<u>Payment(Tk)</u>	<u>USAID Voucher No.</u>
H2-01	Progress Payment	48,07,208.61	48,07,208.61	1572

9.0 General

Rains and flooding as well as Eid holidays and hartal slowed down work. The water is receding and the contractor is building an access road to start work on fill and foundations for the ancillary buildings.

10.0 Variation (Overruns or Underruns)

Estimated Total Contract Price	Tk. 1,41,20,342.60
A4 Excavation	+ 34,862.85
A5-a	+ 40,143.20
A5-b	- 13,300.80
A6-a	- 1,28,655.00
A6-b	+ 4,03,927.50
A21	- 16,626.00
Revised Estimated Total Contract Price :	Tk. 1,44,40,694.35

32

CONSOLIDATED MATERIALS TESTING REPORT

PROJECT : Fertilizer Warehouses Phase III

For the month Sept. 1984

Site : Chowmuhani

Material/Test	Spec. No.	No. of Tests	No. Approved	No. Dis-Approved	Remarks/Requirement
A. Select Fill	2E.01-1	7	3	4	F.M. > 1.5
B. Plaster Sand	9B.02	2	1	1	F.M. > 1.6
C. Mortar Sand	4A.03	3	2	1	
D. Wood	6A.03B	3	-	3	
E. Surcharge Field Wet density		27	-	-	

TECHNOCON LTD, DHAKA

SCHEDULE OF EVENTS

PROJECT : FERTILIZER WARE HOUSES PHASE-III
 LOCATION: H2-CHOWMUHANI/BO. JALABANDEBAR

PERIOD FROM . 1.10.1984 . . . TO . 31.10.1984 .

WORK ITEM:

EVENT	DESCRIPTION OF WORK	TIME ESTIMATE	SCHEDULED		ACTUAL		REMARKS
			START	FINISH	START	FINISH	
	<u>Site Development</u>						
	a) Boundary Wall: (Brick Work, copping casting, angle painting and barbed wire glacing) except western portion	28.384	31.10.84		25.3.84		Western portion of boundary wall is still 3' to 4' flood water
	b) 48" dia R.C. pipe culvert (select sand filling & compaction, end wall casting and installation of culvert pipe)	30.9.84	31.10.84		30.9.84		We made mud dam around culvert area on 25.9.84 and pumped out 4'-0" flood water from that area on 26.9.84
	c) Public Toilet: (Floor casting, inside wall brickwork and plastering work)	1.7.84	15.10.84		3.6.84		Public toilet electrical and sanitary fixing may be completed by end of this month
	d) Guard House: (Select sand filling, compaction upto finished ground level, brick work and slab casting)	1.10.84	31.10.84		1.10.84		Guard house area was under 4'-0" of flood water
	<u>Ancillary Bldg:</u>						
	a) i) Filling and compaction of R3 bldg. upto finished ground level	30.9.84	15.10.84		30.9.84		Area was under 4'-0" flood water. We pumped out the water
	ii) Brick work at foundation & other area	16.10.84					To be contd.
	b) Filling and compaction of R2 bldg. upto F.G.L.	5.10.84	31.10.84				Area is still under 4'-0" flood water. We are making mud dam around the area for pumping out water
	c) Filling and compaction of R1 bldg upto F.G.L.	5.10.84	31.10.84				Area is still under 4'-0" flood water. We are making mud dam around the area for pumping out water/

(more)

INVITATION NO.6 : H3-LAKSHMIPUR

CONTRACTOR : Technocon Limited

Total Contract Price : Tk.55,91,275.35

Change Orders : Tk. 5,000.00

Revised Contract Price : Tk.55,96,275.35

Payments To Date : Tk.19,88,767.68

Retention To Date : Tk. 1,13,343.07

L/Com. No. : 388-002408

Date of L/Com. : 31.01.84

Issue Date of L/Com. : 23.02.84

Amount of L/Com. : Tk.55,91,275.35
(\$224,858.00)Performance Guarantee : Indosuez PB/TK/007
Tk. 5,59,130

Insurance : DAC/CAR/P-06/4/84

Date of Contract : 12.01.84

Site Handed Over : 31.01.84

Notice To Proceed : 23.02.84

Scheduled Completion: 23.02.85 (365)

Elapsed Time: 221 days 61%

% Completion			
Scheduled		Actual	
This Period	To Date	This Period	To Date
8%	61%	8%	51%
Work	:	8%	36%
Material	:	-	15%

1.0 Key Site Personnel

Engineer : : Field Engineer - M. Hassan
 : Field Engineer - Mozaharul Islam
 : Technician - S. Khan

Contractor : Project Engineer - Liakat Ali Sikder
 : Asst. Site Engineer - J. Alam
 : Site Manager - M.H. Bahar
 : Foreman - M.M. Hossain

2.0 Contractor's Activities

The contractor worked on brick walls and columns of the godown, placed the two canopy slabs, bottom vents and most of the fill. The interior footings were cast.

On the Ancillary Building same plastering and pipe work was done.

	<u>This Period</u>	<u>To Date</u>
A. Site Development	9%	42%
A1 Mobilization and Demobilization	3%	81%
A2 Preparation of Site	4%	90%
A3 Excavation of Waste	57%	93%
A4 Excavation	29%	65%
A6 Filling with Imported Material, Select Fill	20%	40%
A10 Boundary Wall	24%	92%
A15 Guard House	10%	70%
A16 Public Toilet	-	90%
B. Warehouse	10%	30%
B2 RCC in Footing and Grade Beam	22%	100%
B3 R.C. Column	11%	66%
B4 R.C. Canopy	100%	100%
B7 Reinforced brick masonry wall	35%	45%
B11 Reinforcing Steel	4%	31%
B13 Bottom Vent	70%	70%
B16 Cement Plaster	11%	31%

C. Ancillary Building	8%	80%
C4 Damp Proof Course	-	100%
C5 Brickwork above Plinth Level	-	100%
C6 Reinforced Concrete	-	100%
C9 Reinforcing Steel	-	100%
C14 Cement Plaster	10%	100%
C15 Cement Plaster	-	88%
C17 Neat Cement Finishing	-	9%
C23 Removal Lime Terracing	-	100%
D. Water Supply, Sanitary and Plumbing	2%	10%
D8 Septic Tank, Type B	-	100%
D9 Soak Well	-	30%
D10 W.C. Pan Install	-	50%
D17 Install H.C.I. Pipe (4" dia)	-	100%
D18 H.C.I. Siphon	80%	80%
D19 Install G.I. Water Supply Pipe	47%	87%
E. Electrical	1%	7%

2.1 Approved Materials On-Site

Portland Cement	-	100 bags
Reinforcing Steel, Deformed	-	36 MT
Bricks, 1st Class	-	5000 (To be sorted)
Boulders	-	12,500 cft
Sand, Coarse	-	3,500 cft
Sand, Fine (For Filling)	-	10,000 cft
Wood	-	120 cft
Pea Gravel	-	500 cft

2.2 Major Equipment On-Site

- 1- Concrete Mixer
- 2- Vibrators
- 1- Pick-up Truck
- 1- Truck
- 1- Vibrator Roller

3.0 Problems and Delays

Rain continued to delay the progress.

4.0 Action Required

- | | |
|------------|--|
| Contractor | . Install deep tubewell |
| | . Arrange pressure test for water line |

5.0 Claims

6.0 Work Scheduled Next Month

The contractor will complete the godown fill, cast interior columns. work on shear walls and start forming the godown roof.

7.0 Deleted

8.0 Financial

<u>Invoice No.</u>	<u>Item</u>	<u>Amount Invoice (Tk)</u>	<u>Payment</u>	<u>USAID Voucher No.</u>
H3-01	Material Prepayment	12,72,681.70	12,72,681.70	1248
H3-02	Progress to 16.06	7,16,085.93	7,16,085.93	1597

9.0 General

The contractor finally started moving and is working hard on all parts of this small godown. Material and skilled workers were at site to execute the work at hand.

10.0 Variation

Change Orders

H3-01	31.05	Provide Kitchen Chimney Complete	Tk. 5,000.00
H3-02	12.06	Construct Type B Boundary Wall	Pending BADC's approval

CONSOLIDATED MATERIALS TESTING REPORT

Project : Fertilizer Warehouses Phase III

For the month Sept. 1984

Site : Lakshmipur

Material/Test	Spec. No.	No. of Tests	No App- roved	No Dis- Approved	Remarks/Requirement
A. Select Fill	2E.01-a	13	6	7	F.M. 1.5
B. Mortar Sand	4A.03	3	3	0	
C. Pea Gravel	4A.05	1	1	0	
D. Bricks: Frogmark:	4A.02	3	3		
E. Field Density Tests: Select Fill	2E.01	14	13	1	95% MDD

No. of test at
3 days 7 days 28 days

F. Concrete:					
Compressive	3A.03				
Strength Test	3A.05	-	4	16	

Average 28 day Strength of Concrete:

1. Godown columns - 4024 FSI (Av. of 14 cylinders)

TECHNOCON LTD, DHAKA

SCHEDULE OF EVENTS

PROJECT : FERTILIZER WARE HOUSES PHASE-III
 LOCATION: ~~H2-TECOXANIK~~/H3-LAKSHMIPUR

PERIOD FROM .1-10-1984 . . TO .31-10-1984

WORK ITEM:

EVENT	DESCRIPTION OF WORK	TIME ESTIMATE	SCHEDULED		ACTUAL		REMARKS
			START	FINISH	START	FINISH	
<u>A-SITE DEVELOPMENT</u>							
A4	Excavation		1.10.84	contd.			
A6	Filling with imported materials		1.10.84	"			
A8	Brick Pavement		25.10.84	"			
A9	Brick guard wall	4 days	22.10.84	25.10.84			
A15	Guard house	10 "	1.10.84	10.10.84			
A16	Public Toilet	20 "	1.10.84	20.10.84			↗ If shutter become seasoned with approval "
<u>B-WAREHOUSE</u>							
B3	Reinforeed Concrete ccl	20 "	1.10.84	20.10.84			
B6	Platform		25.10.84	contd			
B7	Reinforced Brick Masonry work	25 "	1.10.84	25.10.84			
B13	Bottom Vent	10 "	1.10.84	10.10.84			- Partly complete
B14	Fixed glazed window	4 "	25.10.84	28.10.84			- Bottom sill complete
B16	Cement plaster	5 "	26.10.84	30.10.84			
<u>C-ANCILLARY</u>							
C7	Patent stone flooring	15 "	1.10.84	15.10.84			
C10	Wooden door window Frame	5 "	1.10.84	5.10.84			
C11	Wooden door window shutter	20 "	10.10.84	30.10.84			- If shutter bcome seasoned with approval
C13	Steel grill	15 "	15.10.84	30.10.84			
C15	Cement Plaster	15 "	15.10.84	31.10.84			
C16	Precast ventilator	10 "	1.10.84	10.10.84			
C17	Neat cement finishing	15 "	1.10.84	15.10.84			
C18	Lime tracing roof	15 "	15.10.84	30.10.84			
	Water supply.		1.10.84	contd			
	Electrical		1.10.84	"			

INVITATION NO.7 : I4-CHANDPUR

CONTRACTOR : Fazle Azim Engineers Ltd.

Total Contract Price : Tk.1,70,67,822.35
 Change Orders : Tk. 11,440.00
 Revised Contract Price : Tk.1,70,96,018.35
 Payments To Date : Tk. 47,28,456.00
 Retention To Date : Tk. 3,03,761.78
 L/Com. No. : 388-002409
 Date of L/Com. : 31.01.84
 Issue Date of L/Com. : 23.02.84
 Amount of L/Com. : Tk.1,70,67,822.35
 (\$686,398.00)

Date of Contract : 16.01.84
 Site Handed Over : 31.01.84
 Notice To Proceed : 23.02.84
 Scheduled Completion: 23.02.85(365)
 Elapsed Time: 221 days 61%

Performance Guarantee : Janata MCK/002/84
 Tk. 17,10,000
 Insurance : DAC/CAR/P-10/5/84
 dt. 12.05.84
 Fidelity Bond : MCK:004:84, 06.03.84
 Tk. 8,53,400

% Completion			
Scheduled		Actual	
This Period	To Date	This Period	To Date
8%	61%	4%	38%
	Work	3%	26%
	Material	1%	12%

1.0 Key Site Personnel

Engineer	: Field Engineer Inspector Asstt. Technician	- Alangir Bhuiyan - G. Mohammad - A. Nader
Contractor	: Project Engineer Inspector	- Nazirul Huq Bhuiyan - Tajul Islam Bhuiyan Mustafizur Rahman

2.0 Contractor's Activities

The filling of the godown area is nearly complete. All column footings are cast. The shear wall construction continues as does the casting of columns. Two canopies and bottom louvers were placed.

	<u>This Period</u>	<u>To Date</u>
A. Site Development	3%	41%
A1 Mobilization and Demobilization	2%	94%
Engineer's Field Office		
Work remaining: Final painting, glazing sanitary, water and electrical		
A2 Preparation of site	-	90%
A3 Excavation To Waste	-	95%
A4 Excavation	-	85%
A6 Filling with Imported Material(Select)	6%	74%
A10 Boundary Wall	0%	47%
A22 Retaining Wall and Steps	-	15%

B. Warehouse	5%	30%
B2 RC Footing	20%	100%
B3 RC Columns	38%	84%
B4 RC Canopy	50%	50%
B7 Reinforced brick wall	21%	37%
B11 Reinforcing Steel	2%	37%
B13 Bottom Vent	30%	50%
B16 Cement Plaster	24%	24%

C. Ancillary

Work held in abeyance. Refer to Problems and Delays

D. Water Supply, Sanitary and Plumbing

D8 Septic Tank	-	3%
D9 Soak Well	-	24%

2.1 Approved Material On-Site

Portland Cement	-	5 MT
Reinforcing Steel, Deformed	-	76 MT
Bricks, 1st Class	-	187,000 Nos.
Boulders	-	36,300 cft.
Sand, Coarse	-	13,000 cft.
Sand, Fine (For Filling)	-	20,000 cft.

2.2 Major Equipment On-Site

- 2- Concrete Mixer
- 3- Vibrator
- 2- Water Pump
- 1- Welder
- 2- Drill Machine

3.0 Problems and Delays

- Work on ancillary buildings R2 and R3 held in abeyance pending completion of removal of existing structures by others.

4.0 Action Required

- BADC :
- Approve cost estimate of bridge providing access to site
 - Approve Retaining wall near the Sen Gupta Road and new bridge.

- Contractor :
- Action on providing incoming power line

5.0 Claims

- Letter 2511 of 19.9.84 for R.C. Retaining Wall at old godown.

6.0 Work Scheduled Next Month

Continue work on columns, shear walls, canopies and prepare godown roof form.

7.0 Deleted

8.0 Financial

<u>Invoice No.</u>	<u>I t e m</u>	<u>Amount Invoice (Tk.)</u>	<u>Payment</u>	<u>USAID Voucher No.</u>
-	Mobilization Advance	8,53,391.12	8,53,391.12	0097
14-01	Material Prepayment	14,06,400.00	14,06,400.00	1249
14-02	Material Prepayment	6,26,500.00	(-6,26,500.00) 1/	1753
14-03	Progress Payment	24,68,664.86	24,68,664.86	1855

1/ Amount recovered against Mobilization Advance.
Interest, to be determined by USAID, payable by Contractor on outstanding advance and delayed repayment.

9.0 General

. A continuing high water level, heavy rains and Eid holidays hindered the work progress. The contractor could have accomplished more if the work force would be increased. Not enough mason are at site to speed up the shear wall. No preparations are being made for the roof form.

10.0 Variations (Overruns and Underruns)

Total Contract Price		Tk.	1,70,67,822.35
A2 Change Order I4-01	(+)	Tk.	11,440.00
A3 + A4 Excavation - Overrun	(+)	Tk.	10,650.00
A5 Filling with On-Site Material - Overrun	(+)	Tk.	6,106.00

Revised Estimated Contract Price Tk. 1,70,96,018.35

Additional Variations under review:

- . Construct bridge across canal
- . Purchase 48" R.C. culvert pipe
- . Construct barbed wire fence
- . Repair/rebuild existing boundary wall at canal
- . Construct retaining wall at canal

CONSOLIDATED MATERIALS TESTING REPORT

Project : Fertilizer Warehouses Phase III

For the month Sept. 1984

Site : Chandpur

Material/Test	Spec. No.	No. of Tests	No. App- roved	No. Dis- Approved	Remarks/Requirement
A. Select Fill	2E.01-a	10	8	2	Min. F.M. > 1.5
B. Concrete Sand	3A.02- b.1	4	3	1	
C. Mortar Sand	4A.03	3	3	0	
D. Concrete Coarse Aggregate	3A.02- b.2	6	4	2	
E. Bricks: Frogmark: CBM	4A.02	5	5	0	
F. Plaster Sand	9B.02	1	1	0	Min. F.M. = 1.6

No. of test at

3 days 7 days 28 days

G. Concrete:				
Compressive	3A.03			
Strength Test	3A.05	-	17	59

Average 28 day Strength of Concrete:

1. Godown columns - 3574 PSI (Av. of 40 cylinders)
2. Godown R.B. wall concrete core - 2988 PSI (Av. of 2 cylinder)

VII. Construction Photographs : Submitted sperately vide our letter No.FAEL-ADC/A&W/84/2526 dt. 8-10-84.

VIII. Problems :

- a) All works except Warehouse Building are suspended.
- b) Due to Eid-ul-Azha from 4th Sept. to 12th Sept.,1984 all activities were stopped.
- c) We have been paying storing charge for 48" dia R.C.C. Pipe as claimed by the manufacturer for occupying their yard for the last 6 months.
- d) No permanent power connection has yet been made. Permanent power connection to the project site has now become essential as frequent voltage fluctuation is causing serious trouble to the electrical appliances of E.F.O. building.
- e) Revised layout plan of R2 & R3 buildings has not yet been received.
- f) R1 building is not yet started and waiting for the revised foundation details.
- g) Excess quantity of A4 item (Excavation to waste) has been entered in M.B. & it should be approved so that we can get payment for the quantity in our next invoice.

IX. Programme for Oct.,1984.

- | <u>1. Canopy beam & slab.</u> | <u>Scheduled</u> |
|---|------------------------|
| a) All complete | : 10-15/10/84 |
| <u>2. Casting of columns :</u> | |
| a) All complete | : 1-15/10/84 |
| <u>3. Roof slab, Beam, Girder .</u> | |
| a) Beam shuttering and placing steel for east half. | : 20/10/84 to 10/11/84 |
| b) Girder, spandrel and roof slab shuttering and placing steel. | : 1-30/11/84 |

- | | <u>Scheduled</u> |
|---|-----------------------|
| 4. <u>Brick work</u> | |
| a) Eastern half | : 1-20/10/84 |
| b) Western half | : 1/10/84 to 10/11/84 |
| 5. <u>Filling with Imported Materials :</u> | |
| a) Eastern half | : 1-4/10/84 |
| b) West half | : 1-15/10/84 |

X. Materials Procurement for October, 1984.

- | | |
|-------------------------|---------------|
| a) 1st Class bricks | : 75,000 Nos. |
| b) Pea gravels | : 400 cft. |
| c) Selectfill | : 50,000 cft. |
| d) M.S. Bars (Deformed) | : 42 MT. |
| e) Boulders | : 10,000 cft. |
| f) Sylhet sand | : 20,000 cft. |

INVITATION NO. : 05-PARBATIPUR

CONTRACTOR : The Elite Engineers Ltd.

Total Contract Price : Tk.1,70,02,196.40	Date of Contract : 12.01.84
Change Orders : Tk. -	Site Handed Over : 26.01.84
Revised Contract Price : Tk.1,70,02,196.40	Notice To Proceed : 23.02.84
Payments To Date : Tk. 43,57,822.71	Scheduled Completion: 22.02.85
Retention To Date : Tk. 2,72,101.63	Elapsed Time: 221 days 61 $\frac{1}{2}$

L/Com. No. : 388-002411
Date of L/Com. : 31.01.84
Issue Date of L/Com. : 23.02.84
Amount of L/Com. : Tk.1,70,02,196.40
(\$683,759.00)

% Completion			
Scheduled		Actual	
This Period	To Date	This Period	To Date
8%	61%	1%	30%
Work		1%	20%
Material		-	10%

Letter of Guarantee : LG 84/42 BCCI
Tk. 17,00,220
CAR/PL Insurance : DAC/CAR/P-11/5/84

1.0 Key Site Personnel

Engineer	: Sr. Field Engineer	- M.A. Hannan
	: Inspector	- N. Islam
	: Lab. Assistant	- S. Rahman
 Contractor	 : Project Engineer	 - A.K.M.A. Rashid
	: Structural Engineer	- S. Hossain
		- M.R. Khan

2.0 Contractor's Activities

This Period To Date

The Contractor finished the surcharge for two thirds of the godown on 16.9.84 and continued filling the last third. Only 21,000 cu ft. surcharge were placed this months. First floor lintel were cast at R1 and R2. The roof slab for R1 is in preparation.

A. Site Development	-	35%
A1 Mobilization & Demobilization	-	75%
A2 Preparation of Site	-	70%
A4 Excavation	-	70%
A6 Filling with Imported Material(Select Fill)	-	39%
A10 Boundary Wall Type A	-	13%
A16 Public Toilet	2%	64%
A21 Surcharge for Preloading	5%	77%
 C. Ancillary Buildings	 7%	 29%
C1 Brick Flat Soling	-	27%
C2 Plain Concrete Fdn.	-	27%
C3 Brickwork to P.L.	-	58%
C4 Damp Proof Course	-	61%

	<u>This Period</u>	<u>To Date</u>
C5 Brickwork above P.L.	16%	53%
C6 Reinforced Concrete	7%	34%
C9 Reinforcing Steel	11%	37%
C14 Cement Plaster on Brick	8%	8%
C15 Cement Plaster on Concrete	12%	12%
D. Water Supply, Sanitary and Plumbing	-	7%
D6 Concrete Sewer Pipe		
a) 6" dia	-	6%
b) 4" dia	-	88%
D7 Inspection Pit	-	20%
D8 Septic Tank	-	43%
D9 Soak Well	-	40%
E. Electrical	1%	1%

2.1 Approved Materials On-Site

Portland Cement	- 70 bags
Reinforcing Steel	- 72 Tons.
Bricks, 1st Class	- 34,000 Nos.
Boulders/Crushed Aggregate	- 13,300 cft.
Sand, Coarse	- 30,600 cft.
Select Fill)	
Ordinary Fill)	- 12,000 cft.
Mortar Sand	- 11,000 cft.

2.2 Major Equipment On-Site

- 1- Concrete Mixer
- 1- Water Pump (Diesel)
- 1- Water Pump (Electric)
- 2- Vibrators (Electric)
- 1- Vibrator (Diesel)
- 1- 1350 kg. steel roller

3.0 Problems and Delays

The work was delayed by occasionally heavy rains and the Eid holidays. The access road to the sand deposits became inaccessible. Lack of management at site and of urgency on the part of the contractor to finish the surcharge continue to contribute to delays.

4.0 Action Required

- | | | |
|------------|---|--|
| BADC | : | . Arrange with BR removal of condemned railway wagons, rails and coal from the siding alignment, |
| Contractor | : | . Arrange for incoming electric power line. |
| | | . Complete surcharge |
| | | . Comply with punch list for EFO. |

- 5.0 Claims This Month: . 18.9.84 claim for time extension due to various causes.
 . 25.9.84 Enhancement of rates due to price increases.

6.0 Work Schedule for Next Month

Completion of surcharge. Casting of roofs for building R1 & R2.

7.0 Eliminated

8.0 Financial

<u>Invoice No.</u>	<u>I t e m</u>	<u>Amount Invoice(Tk.)</u>	<u>Payment(Tk.)</u>	<u>USAID Voucher No.</u>
05-01	Material Prepayment	14,96,000	14,96,000	1225
05-02	Material Prepayment	12,16,750	12,16,750	1571
05-03	Progress Payment	16,45,747	16,45,072	1875

9.0 General

Further delays in finishing the surcharge were caused by bad weather, making the access road to the sand deposit unusable. The site Engineer is working only part time of the site. No urgency on the part of the contractor seems to exist to push the work.

18

CONSOLIDATED MATERIALS TESTING REPORT

Project : Fertilizer Warehouses Phase III

For the month Sept. 1984

Site : Parbatipur

Material/Test	Spec. No.	No. of Tests	No. App- roved	No. Dis- Approved	Remarks/Requirement
A. Select Fill	2E.01.a	1	1	0	
B. Plaster Sand	9B.02	3	2	1	
C. Concrete Coarse Aggregate	3A.02-b.2	2	1	1	
D. Surcharge Field Wet density		6	-	-	

No. of test at
3 days 7 days 28 days

E. Concrete:					
Compressive	3A.03	-	2	24	
Strength Test	3A.05	-			

Average 28 day Strength of Concrete:

1. R2 Building column Foundation, R2 stairway 2nd flight -3743 PSI (Av. of 3 cylinder)
2. R1 1st floor slab - 3307 PSI (Av. of 3 cylinder)
3. R2 1st floor slab & Stairway 2nd flight-4103 PSI(Av. of 3 cylinder)
4. R2 Stairway 1st flight & Porch slab - 3654 PSI (Av. of 3 cylinder)
5. R2 building, columns, Porch beam & False slab - 3525 PSI(Av. of 3 cylinder)

II. CONSULTANT'S ACTIVITIES

A. FINANCIAL - PROGRESS SCHEDULE

FINANCIAL

Total Procurement Budget	- \$ 2,014,567
Special Project Activity	- \$ 245,498
Total Contract Budget	- \$ 2,260,065

Estimated Expenditures To-Date	- \$ 1,364,410
--------------------------------	----------------

% Expenditure to Total Contract Budget	- 60.4%
--	---------

PROGRESS

Elapsed Contract Time	- 661 days
Remaining Contract Time	- 273 days
% Elapsed Time	- 70.8%

51

B. ADMINISTRATION

1. The Consultant's Agreement

- . Contract Agreement Signed - 09 December 1982
- . Effective Date - 09 December 1982
- . AID Letter of Commitment No.388-0024-3-30381 - 15 December 1982
- . Duration - 30 June 1985*
(30.74 mos.)
- . Months Completed - 21.74

* Amendment No.1 dated 28.03.84

2. Expatriate Staff

		<u>Man-Months</u>	
		<u>Allocated</u>	<u>Utilized</u>
George A. Pecht	- Project Manager	27	19.11
Klaus Thieme	- Chief Construction Engineer	25	15.71
-	- Foundation Engineer	11	11.17
-	- Structural Engineer	6	4.91
Y.O. Kim	- Project Engineer	16	6.86

3. Contract Administration

- . USAID extending Project Assistance Completion Date (PACD) to July 28, 1986 (AID Letter No.671, 03.05.84)

4. Meetings

- . BADC/USAID/A&W monthly review meetings
- . Consultant's periodic staff review meetings.
- . Meetings with construction contractors.

52

II. Consultant's Activities

5. Supporting Bangladeshi Personnel

5.1 WEL and SSL Personnel (Sub-Contractor)

<u>Designation</u>	<u>Man-Months</u>	
	<u>Allocated</u>	<u>Utilized</u>
Deputy Project Manager	27	20.7919
S&M Engineer	24	23.2728
Structural Engineer	9*	9.0388
Architect	4	3.8389
Electrical Engineer	6	6.0000
Railway Engineer	24	18.9089
Office Engineer	26	20.8656
Land Procurement Officer	18*	18.1366
Surveyor	25	19.6096
Instrument Man	25	18.5664
Rodman	25	12.8222
Chainman	25	19.0939
Draftsman*	69*	55.8458
Laboratory Technician	56	58.6161
Laboratory Assistant	56	35.1525
Estimator	48	25.8943
Senior Field Engineer	60	45.1809
Field Engineer	80	34.6931
Inspectors	128	56.1951
Drivers	94	31.9765
Messenger	34	-
Peon	34	-
Guard	68	-
Clerk	34	-
Typist	34	-

5.2 Administrative Personnel

Administrative Manager	27	21.2324
Senior Accountant	27	21.5844
Assistant Accountant	44	19.6849
Secretary	27	21.5368
Printer	27	19.9069
Typist	72	51.6054
Clerk	45	28.0015
Drivers	103	79.8601
Messenger	45	18.8160
Peon	72	56.5433
Guard	90	95.7518
Radio Operator	48	-
Office Superintendent/Asst. Accountant	34	8.3478

* Adjusted

II. Consultant's Activities

6. Project Expenditures
(Estimated Project Cost Incurred)

<u>Item</u>	<u>Agreement Budget</u>	<u>Adjusted Budget</u>	<u>This Month</u>	<u>Cumulative</u>
Services in Bangladesh \$	746,188	\$ 790,172	\$ 15,964	\$ 549,087
Services in Home Office	176,178	176,178	870	136,091
International Travel, etc.	85,740	85,740	4,873	29,031
Housing Allowances				
Per Diem etc.	91,075	102,775	1,389	67,557
Logistic Cost	223,400	223,400	3,106	98,168
Supporting Staff	382,404	387,842	13,214	197,440
Misc. Direct Costs	43,000	43,000	497	15,927
Fixed Fee	205,460	205,460	7,610	167,420
	<u>\$ 1,953,445</u>	<u>\$2,014,567</u>	<u>\$ 47,523</u>	<u>\$1,260,721</u>
Percent of Estimated Budget			2.36%	62.58%
Percent Contract Time (To 30.06.85)				70.72%
Special Project Activity	<u>306,620</u>	<u>245,498</u>	<u>1,886</u>	<u>103,689</u>
	<u>\$ 2,260,065</u>	<u>\$2,260,065</u>	<u>\$ 49,409</u>	<u>\$1,364,410</u>
	=====	=====	=====	=====

7. Billing and Payment

<u>Invoice</u>	<u>Period Ending</u>	<u>Billing</u>	<u>Payment</u>
01-17	31 July 84	\$ 1,199,334.41	\$ 1,189,676.20

8. Reports

Monthly Progress Report No.21 for August 1984 submitted by letter /2326, 10 September 1984.

54

C. TECHNICAL

1. Summary of Consultant's Activities During This Month

The Engineer continued monitoring the construction work of the Contractors at each of the sites. Concrete cylinders were prepared from each concrete pour and tested at 7-day and 28-day to determine if strength conformed to specification requirements.

Testing of brick samples continues to determine if they meet specification requirements as to strength and dimensions.

Testing of other materials (select fill, mortar sand, cement) continues in the field and Dhaka laboratory to determine acceptance level for the project.

The Project Manager and Deputy Project Manager supplement the site monitoring by the Chief Construction and Project Engineer by weekly site inspection trips.

The relocation of R2 and R3 buildings necessitate the construction of a retaining wall at the canal along Sen Gupta road at Chandpur site. The Engineer looked into various types of retaining walls and during the month was engaged to design a reinforce-earth retaining wall.

At the request of BADC the Engineer reviewed the boundary fence design along Mehta road to find out a solution of encroachment of BADC land and also to provide security at site.

In the office the Engineer is engaged in checking working (Shop) drawings submitted by the contractors, preparing supplemental and clarifying details, preparing Change Orders, and construction administrative functions. Work at each site is monitored by daily thru radio communication network and timely decisions made on site problems or questions raised.

Comments by BADC and USAID personnel on their site inspection visits receive immediate attention of the Project Manager.

- Analyzing contractor's claims and informing contractors of Engineer's decision.
- Preparing Change Orders as required.
- Determine variations (overruns and underruns) due to changed field conditions.
- Continuing testing at central laboratory and in field of materials to be incorporated in permanent work.
- Issued reminders to the contractors to comply with the Conditions of Contract and Technical Specifications by submitting required documents.
- Issued field message giving directions to contractors as required.
- Follow up on compliance with field message.
- Prepare instruction for contractors' and Engineer's personnel guidance in control of work and materials.

- Prepare and submit Monthly Progress Report.
- Monitoring resolution of site possession and removal of obstructions.
- Kept Manager(Storage) BADC, informed of obstructions and other problems at site.
- Held scheduled meetings with each of Contractos' and Consultant's key personnel.
- Continued site inspection, construction surveillence, and filing reports for action by key staff members.
- Continued monitoring availability of construction materials.
- Key staff members continuing inspecting sites and instructing Engineer's and Contractors' personnel on procedures.
- Spot checking materials and work approved by field staff.
- Checking shop drawings submitted.
- Monitoring contractors' progress against their construction schedules.
- Reviewing contractors' revised work schedule.
- Processing contractors' invoices for payments.
- Monitoring settlement platform elevations at sites surcharged.
- Items requiring follow-up:
 - . Monitoring field testing procedures and test results
 - . Monitoring activity and performance of field staff
 - . Monitoring compliance to field message issued by field staff
 - . Resolving of land problems by BADC
 - . Obtaining clearance from BR by BADC
 - . BADC action in obtaining incoming power line to sites
 - . Continue monitoring results of settlement platforms
 - . Review drainage design at each site on basis of experience during this monsoon period
 - . Review methods of stabilizing soils from erosion and rain-cunts.

2. Railway Siding

BR proposed to hand over 0.62 acres of land to BADC for the construction of railway siding at Kishoreganj. The proposal was looked into and the Engineer demarcated area to be taken over by BADC from BR. Follow up by BADC is required (/2003, 16.6.84).

BR's estimates for Jamalpur Siding and Kishoreganj Siding have been sent to BADC with Engineer's comments (/2260, 26.8.84 and /2318, 4.9.84).

BADC to request BR to take action for removal of box cars, carriages, stockpile of coal, etc. from portion of alignment of the proposed siding at Parbatipur to enable the Contractor to do the embankment work uninterrupted.

Summarizing outstanding issues:

1. Approval of Kishoreganj siding layout plan
(/2003, 16.06.84)
2. Cost estimate for Parbatipur siding
(/1712, 07.05.84)
3. Materials/equipment to be furnished by BR.
(/1712, 07.05.84)
4. Resolve issue at Parbatipur site noted above
(/2059, 03.07.84)

57