GOVERNMENT OF INDIA
NORTH EASTERN COUNCIL SECRETARIAT
NONGRIM HILLS, SHILLONG – 793003

Subject: Forwarding of Inspection Report.

In inviting a reference to the above subject, as requested by the concerned Sector, the physical inspection of the project "Construction of Auditorium and Compound Wall of Sainik School Imphal, Manipur" was carried out in Manipur. The inspection report duly signed by the Consultant (CE) and Consultant (ME), NEC is enclosed herewith. The project was sanctioned on 04th May, 2016 at a total cost of Rs. 688.41 lakhs (NEC's share Rs. 619.56 lakhs and State Share Rs. 68.84lakhs).One instalment of Rs. 247.82 lakhs was released by the NEC.

The inspection, inter alia, mentioned that:

- The works were in progress and the length of the auditorium was found to be more or less same as mentioned in approved DPR.
- The Size of columns provided for columns C2 at site was 30cm x 30cm which was not as per specification mentioned in approved DPR. The reinforcement used for columns C2 at site was 4 nos. of 16mm dia bars and 4 nos. of 12mm dia bars which was also not as per specification mentioned in approved DPR. The Implementing department should clarify as to why they reduced the size of both columns and reinforcement bars and also how the columns constructed at site will bear the huge load coming on them when the size of columns and bars were compromised.
- The Size of columns provided for columns C1 at site was 50cm x 35cm which was as per specification but the reinforcement used were 6 nos. of 16 mm dia bar and 4 nos. of 12 mm dia bars which was not as per specification. The implementing department claims that they have used 10 nos. of 16 mm dia bars in foundation and ground floor level. It could be seen in some columns of C1 that reinforcements were bent at the bottom and this could reduce the strength of the reinforcement. The Implementing department should clarify as to how the columns constructed at site will bear the huge tension load coming on them when the sizes of bars were compromised
- It was found that in some columns the reinforcement bars are exposed to the atmosphere thus this will cause corrosion in the reinforcement bars and also reduce it strength.
- Many extra columns were constructed at site. The Implementing department informed that these extra columns will help support the beams which have a slight deflection at its mid span.
- The quality of work was not upto the mark and the mix used for concreting work was not satisfactory. The Implementing department should conduct a non destructive test on all the columns, beams and slabs of the auditorium building at the project site so as to make sure that the building is safe to withstand a huge amount of load.
- The Implementing department should obtained a certificate from a Structural engineer of a reputed Institute such as NIT or IIT stating that the structural frame (i.e. columns,

beams and slab) of the auditorium can bear the huge load coming on them and that the building will not fail structurally.

- No signboard was found at the site acknowledging that the project is funded by NEC.

With the huge amount sanctioned by the NEC for this project, the auditorium should be a state-of-the-art facility but it appears that the quality of work needs a lot of improvement since safety of the entire structure is of paramount importance.

This is for information and necessary action by the concerned Sector.

Enclosure: As above

(W. Synrem)
Economic Adviser (E&M)

U.O.No.NEC/EM/INSPECTION/HRD&E/2012/19/ (Vol-11)
Dated: the 21../..07./2018

To,

Director (HRD&E), NEC

Copy to,

1. P.S to Planning Adviser, NEC for kind information of Planning Adviser
2. PSA, NIC-NEC (Shri M. Nongkhlaw) for uploading the report with photograph on NEC website.

OK

Report of the inspection carried out on 30/04/2018 for the NEC funded project "Construction of Auditorium and Compound Wall of Sainik School Imphal, Manipur".

The inspection of the above project was carried out by the officials of NEC Secretariat, and officials Education Department, Govt. of Manipur 30/04/2018 at Imphal. The list of the officials present during the inspection is enclosed as Annexure-I & The photographs taken during the time of inspection is enclosed as Annexure-II.

(I) BACKGROUND:

Name of the project:	"Construction of Auditorium and Compound Wall of Sainik School Imphal, Manipur"
Location	Imphal, Manipur
Implementing Agency:	Planning Department of Tribal Development, MDS and MTDC
Date of Sanction:	04th May, 2016
Cost of Project:	Rs. 688.41 lakhs
NEC Share (90%):	Rs. 619.56 lakhs
State Share (10%)	Rs. 68.84lakhs
Total Amount Released by NEC	Rs. 247.82 lakhs
Balanced amount to be Released by NEC	Rs. 371.74 lakhs
Total Amount Released by the State:	Not yet
Balanced Amount to be released by the State:	Rs. 68.84 lakhs
NEC Share released & Dates:	1st installment of Rs. 247.82 lakhs released on 04/05/2016
State Share released & Dates:	Not yet released.
Status of UC for NEC share:	UC of 1st installment of Rs 247.82 lakhs submitted on 26/03/2017.
Status of UC for State share:	UC not submitted
Status of Quarterly Progress Report(QPRs)	Quarterly Progress Report for the Quarter ending submitted on 26/03/2017
Target Date of Completion:	3 years

(II)Aims/Objectives of the Project:

- To provide a modern State of the art auditorium at Sainik School Imphal to supplement the existing infrastructure of the school with an aim to impart all round development of the students
- To provide a compound wall for safety and security of cadets staff, training facilities/materials and to safeguard the property of the school from possible encroachment by the general public

Observations (Physical Achievements):

The following observations are made on the basis of the site inspection and interactions with the officials of the implementing agency.

Sl. No.	Scope of Work as per DPR	Accepted Amount by NEC	Remarks based on site inspection
1.	Auditorium Building: 1440 Sqm	Rs.6,23,25,829/-	• The Consultants have inspected the site and found that the works were in progress. The length of the auditorium was found to be more or less same as mentioned in approved DPR. The Foundation works/pile works could not be inspected because during the time of inspection it was found that the foundation/pile works has already been cover .i.e below the ground level and the construction has reached upto plinth level. • The Size of columns provided for columns C2 at site was 30cm x 30cm which was not as per specification mentioned in approved DPR. The reinforcement used for columns C2 at site was 4 nos. of 16mm dia bars and 4 nos. of 12mm dia bars which was also not as per specification mentioned in approved DPR. The Implementing department should clarify as to why they reduce the size of both columns and reinforcement bars and how the columns constructed at site will bear the huge load coming on them when the size of columns and bars were compromised. • The Size of columns provided for columns C1 at site was 50cm x 35cm which

			was as per specification but the reinforcement used were 6 nos. of 16 mm dia bar and 4 nos. of 12 mm dia bars which was not as per specification. The implementing department claims that they have used 10 nos. of 16 mm dia bars in foundation and ground floor level. It could be seen in some columns of C1 that reinforcements were bend at the bottom and this could reduce the strength of the reinforcement. The Implementing department should clarify as to how the columns constructed at site will bear the huge tension load coming on them when the sizes of bars were compromised. • It was found that in some columns the reinforcement bars are exposed to the atmosphere thus this will cause corrosion in the reinforcement bars and also reduce it strength. Photograph enclosed. • Cracks have occurred in beams of the building and also it was found that many extra columns were constructed at site. The Implementing department informed that these extra columns will help support the beams which have a slight deflection at its mid span. • The quality of work was not upto the mark and the mix used for concreting work was not satisfactory. The Implementing department should conduct a non destructive test on all the columns, beams and slabs at the project site so as to make sure that the building is safe to withstand a huge amount of load i.e. for an auditorium. • The Implementing department should obtained a certificate from a Structural engineer of a reputed Institute such as NIT or IIT stating that the structural frame (i.e. columns, beams and slab) of the auditorium can bear the huge load coming on them and that the building will not fail structurally.
2.	Sitting Arrangement	Rs. 66,19,800/-	Not yet started
3.	Acoustic Treatment	Rs.29,90,280/-	Not yet Started.
	Total:	7,19,35,909/-	

(IV) Co-ordinates:- Latitude: - N24^{0}51.682'

Longitude: - E 93^{0}58.602'

(V) Overall Remarks and Suggestions:-

- The Consultants have inspected the site and found that the works were in progress. The length of the auditorium was found to be more or less same as mentioned in approved DPR.
- The Size of columns provided for columns C2 at site was 30cm x 30cm which was not as per specification mentioned in approved DPR. The reinforcement used for columns C2 at site was 4 nos. of 16mm dia bars and 4 nos. of 12mm dia bars which was also not as per specification mentioned in approved DPR. The Implementing department should clarify as to why they reduce the size of both columns and reinforcement bars and also how the columns constructed at site will bear the huge load coming on them when the size of columns and bars were compromised.
- The Size of columns provided for columns C1 at site was 50cm x 35cm which was as per specification but the reinforcement used were 6 nos. of 16 mm dia bar and 4 nos. of 12 mm dia bars which was not as per specification. The implementing department claims that they have used 10 nos. of 16 mm dia bars in foundation and ground floor level. It could be seen in some columns of C1 that reinforcements were bend at the bottom and this could reduce the strength of the reinforcement. The Implementing department should clarify as to how the columns constructed at site will bear the huge tension load coming on them when the sizes of bars were compromised.
- It was found that in some columns the reinforcement bars are exposed to the atmosphere thus this will cause corrosion in the reinforcement bars and also reduce it strength. Photograph enclosed.
- It could be seen that cracks has occurred in beams of the building and also it was found that many extra columns were constructed at site. The Implementing department informed that these extra columns will help support the beams which have a slight deflection at its mid span.
- The quality of work was not upto the mark and the mix used for concreting work was not satisfactory. The Implementing department should conduct a non destructive test on all the columns, beams and slabs of the auditorium building at the project site so as to make sure that the building is safe to withstand a huge amount of load.
- The Implementing department should obtained a certificate from a Structural engineer of a reputed Institute such as NIT or IIT stating that the structural frame (i.e. columns, beams and slab) of the auditorium can bear the huge load coming on them and that the building will not fail structurally.
- No signboard was found at the site acknowledging that the project is funded by NEC.

(Liza R Hek)
Consultant (ME),
NEC Secretariat, Shillong

(Jeriel Nicholas. J. Kharbhih)
Consultant (CE)
NEC Secretariat, Shillong

Annexure I

List of officials who were present during the inspection of NEC funded project **"Construction of Auditorium and Compound Wall of Sainik School Imphal, Manipur"** on 30/4/2018

Sl. No.	Name	Contact No. & Email id	Designation & Organisation/Department	Signature
1.	Kh Sharat	8974041794	C/E	
2.	Ranbir	8413831324	SO	
3.	Ramakant	8729859686	SO	Ramakant Sharma
4.	Amit	7005408009	SO	Amit
5.	Y. RAJENDRA SINGH	9862270898	Liaison Officer (Planning)	
6.	Th. Saratchandra Singh	8413983111	Q.M. Sainik School	
7.	Jerid Khorshik	9436535665	Consultant. CE NEC	
8.	Liza. R. Itch	9436165755	Consultant-HE NEC	
9.				
10.				

Annexure II

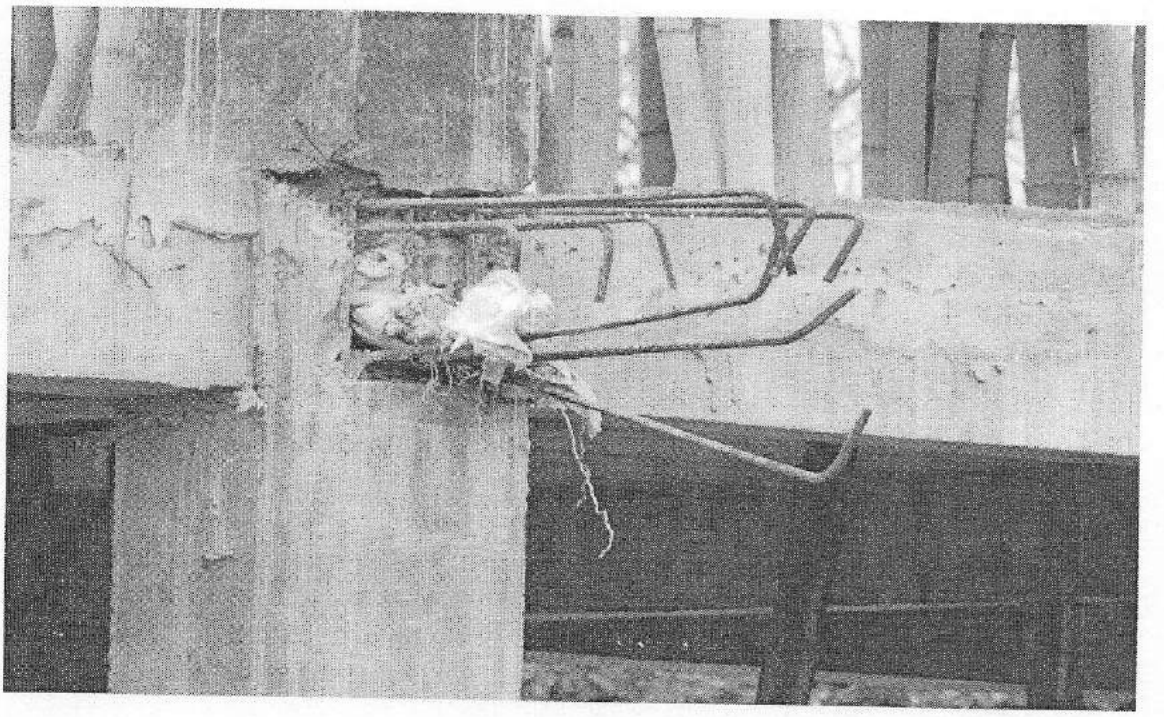


Photo showing poor quality of work. Reinforcement of columns exposed.

Photo of the NEC inspection team and the implementing Department at the Project site

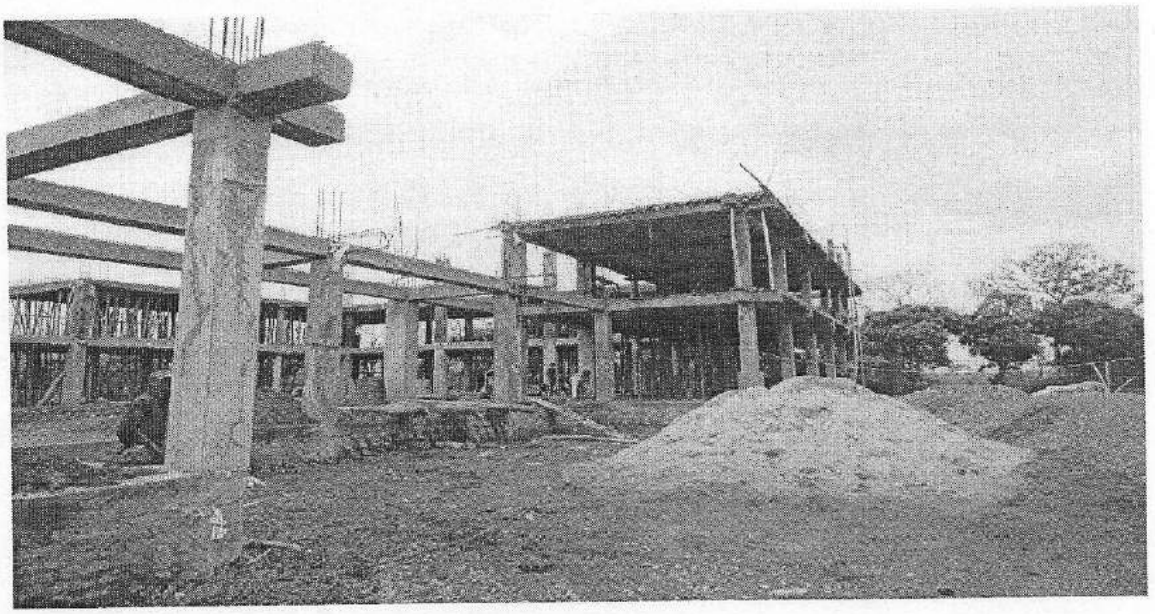
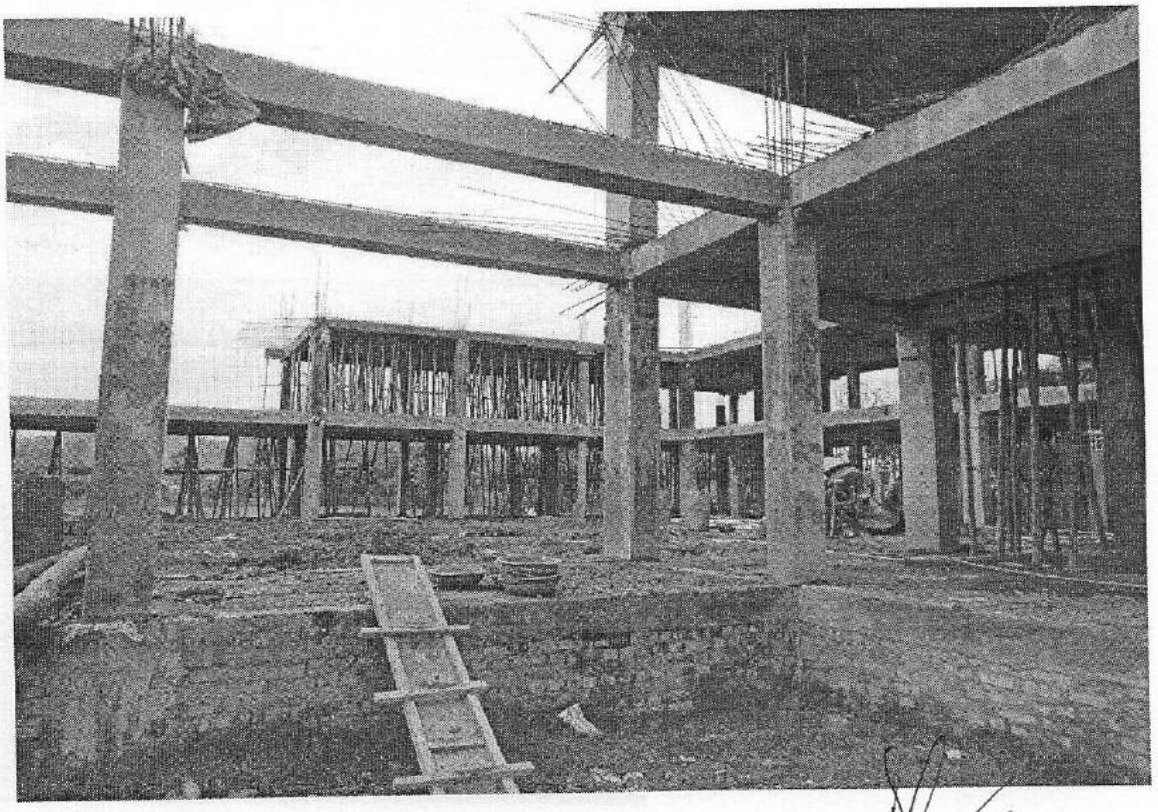


Photo of the construction of Auditorium Sainik School Imphal



View of the Newly Contructed Auditorium at Sainik School Imphal

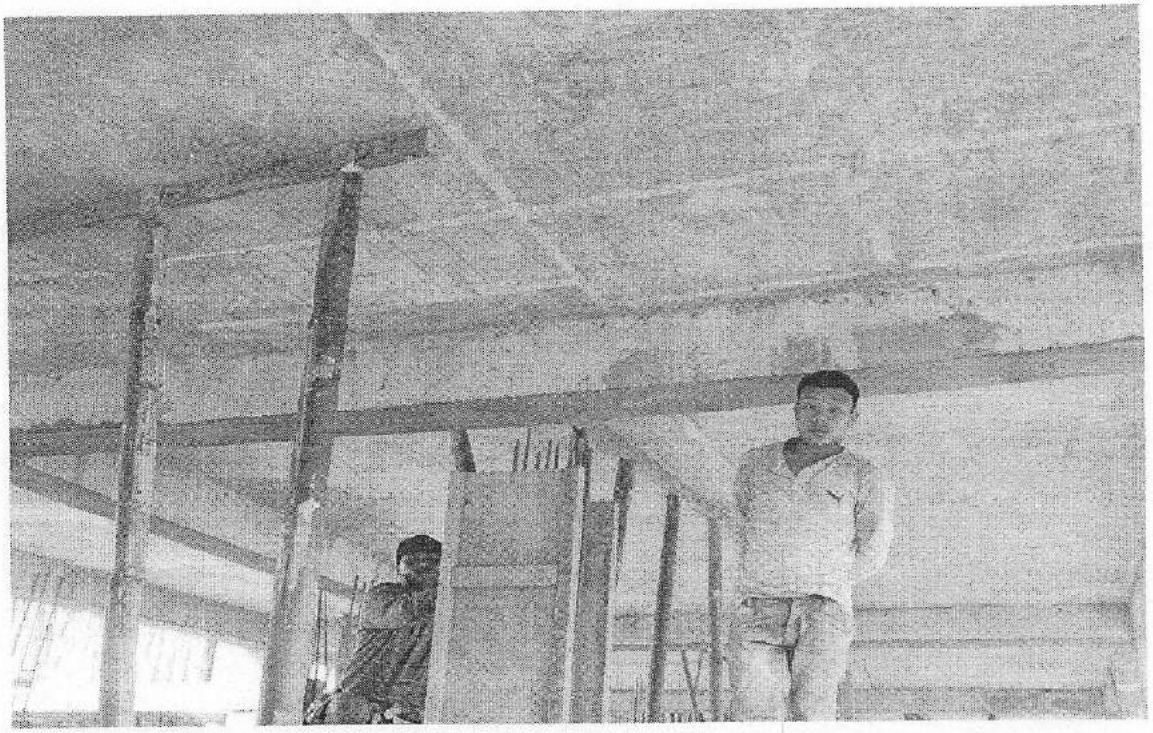


Photo of the extra column constructed to support a deflected beam.

Photo of reinforcements used for extra columns.

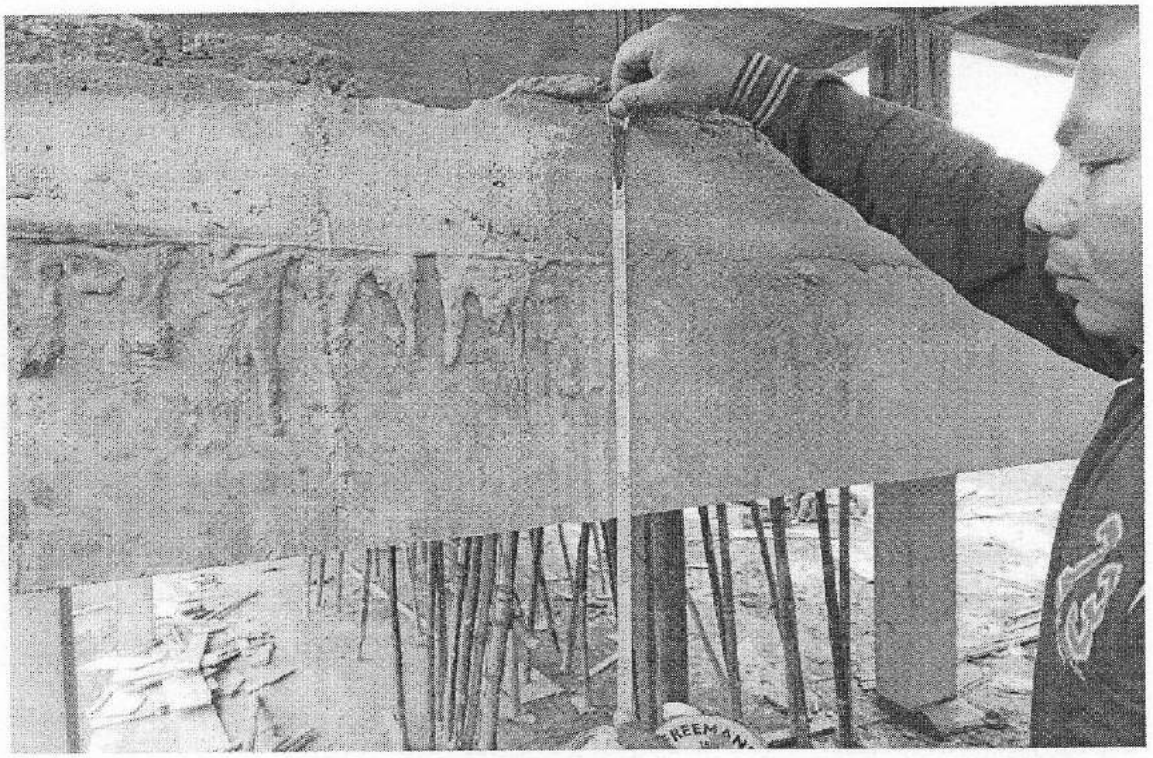


Photo showing the depth of beam and thickness of slab.

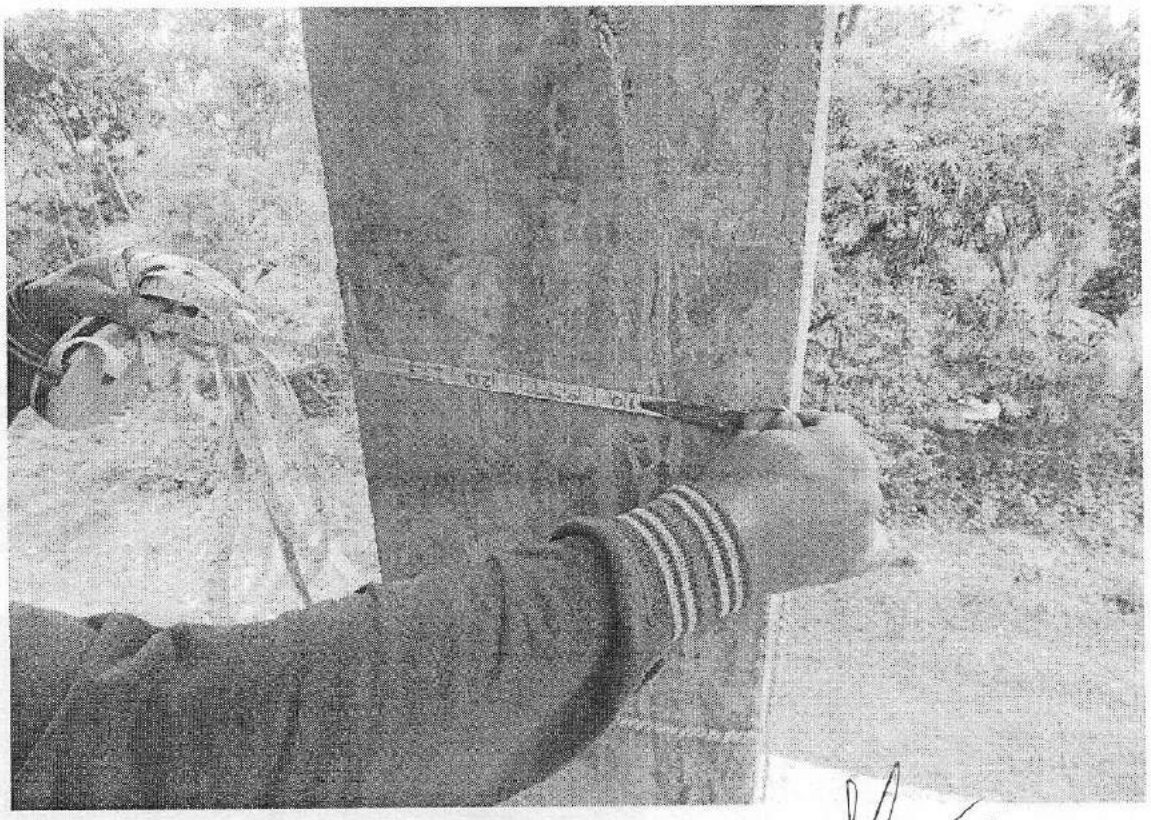


Photo showing Column size

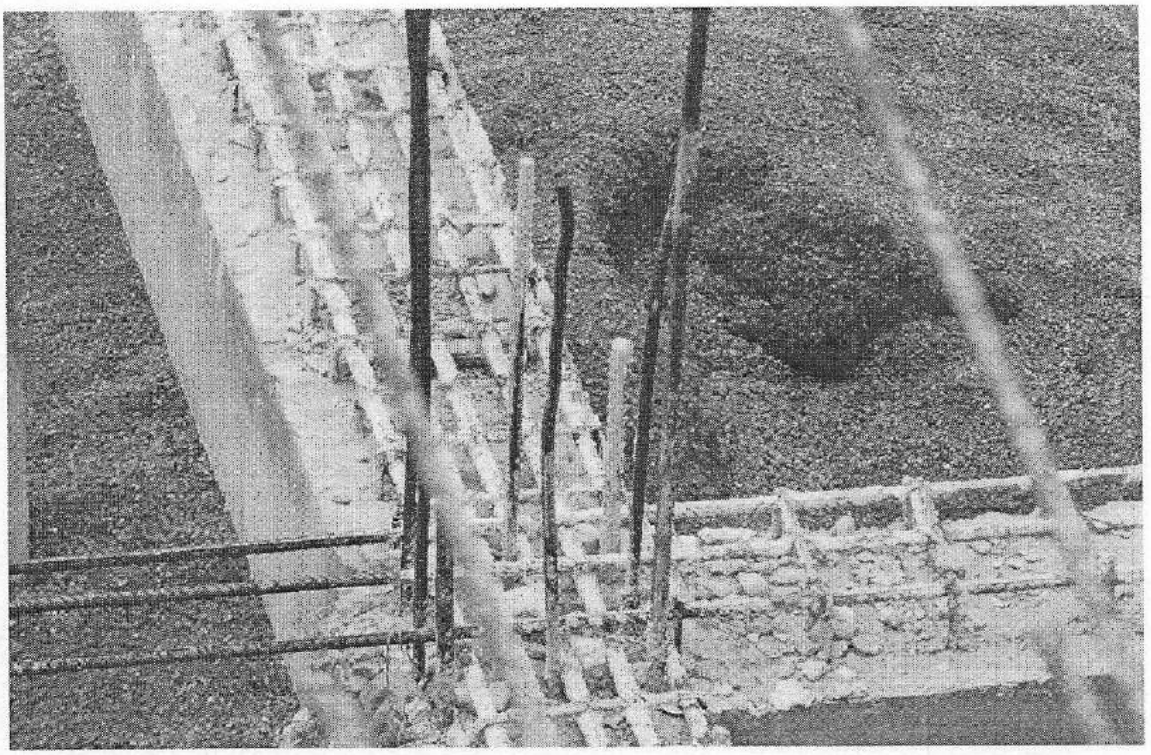


Photo of the reinforcements in beams and columns.

Photo of the reinforcement in columns are being bend.

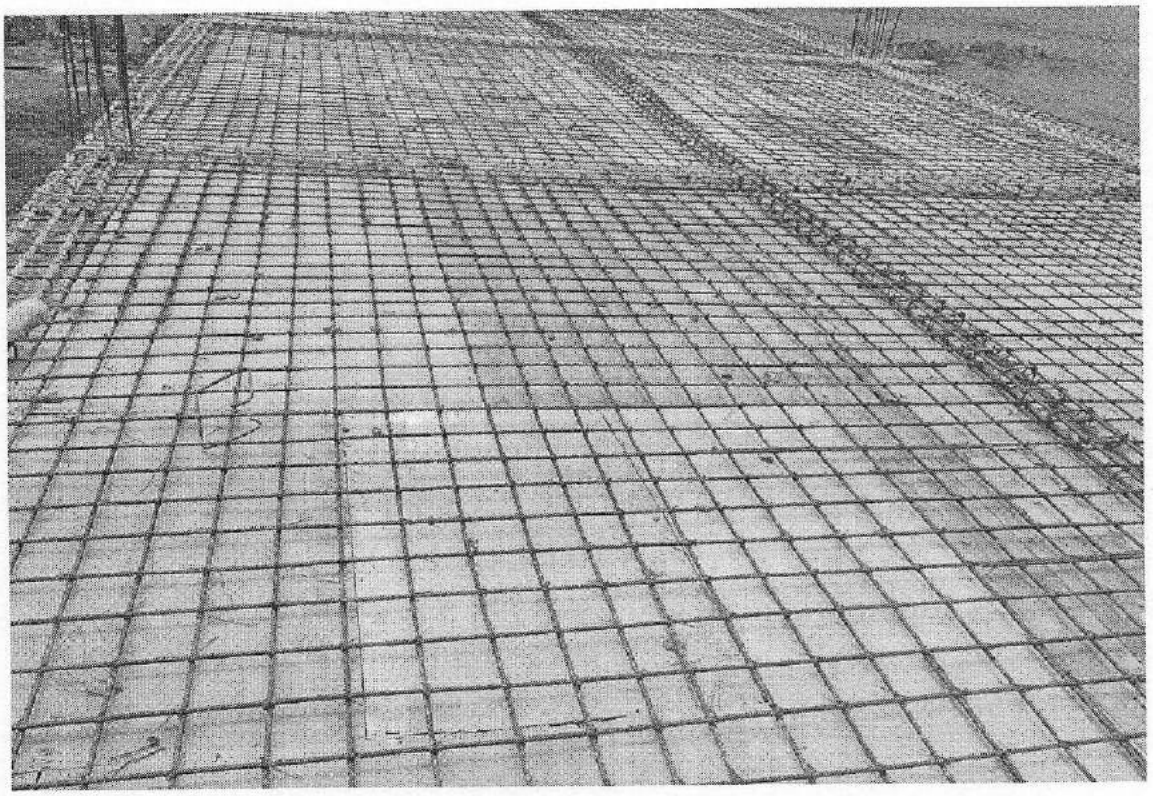


Photo of the slab reinforcement.

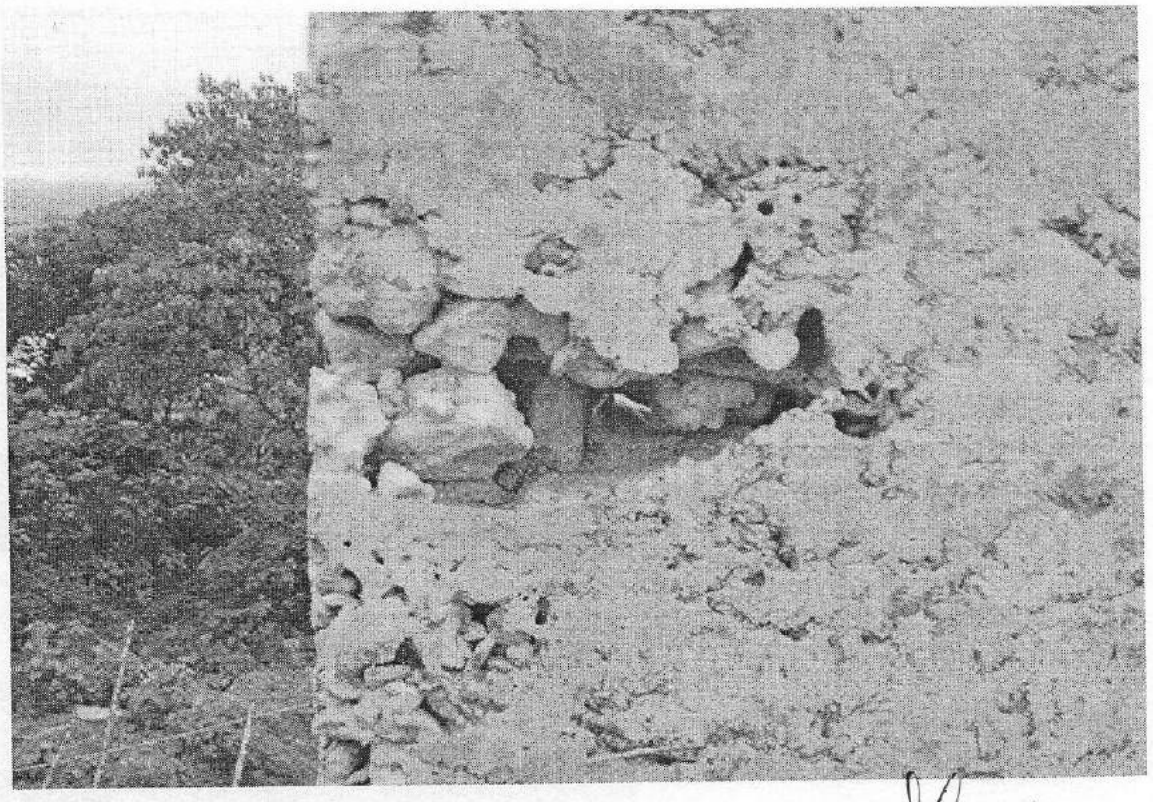


Photo showing the quality of casting in a column. Reinforcement exposes.

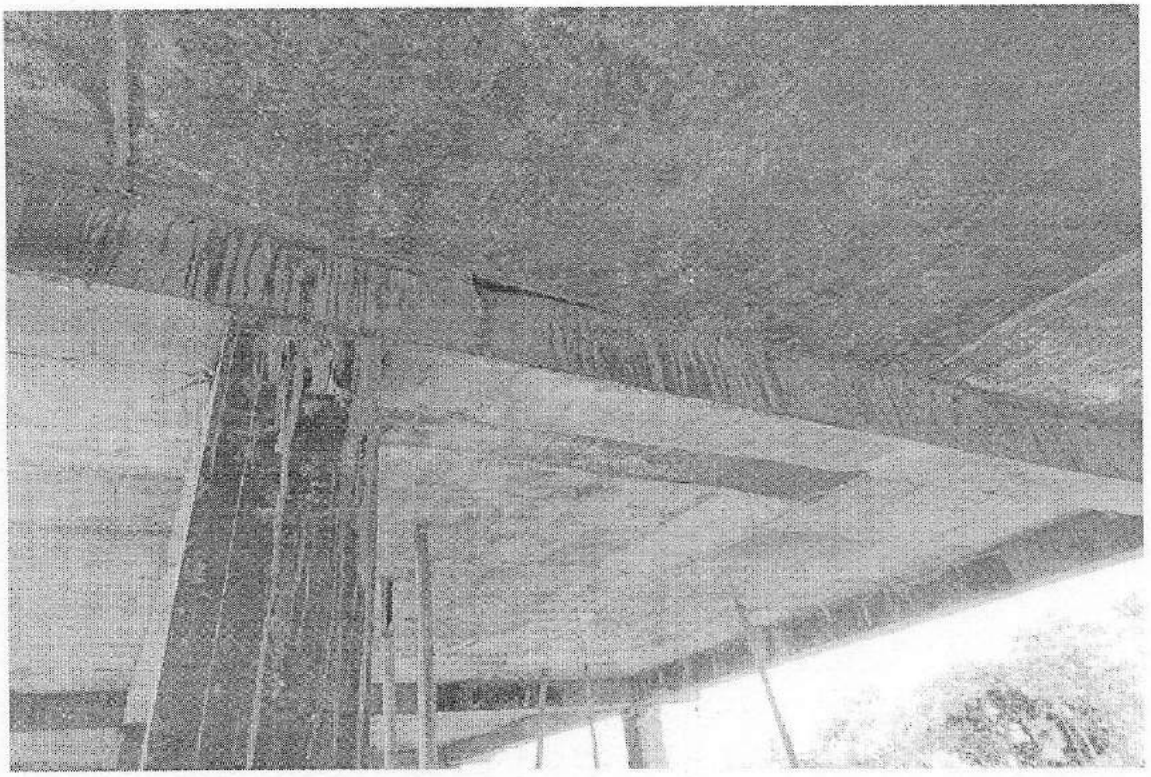


Photo of Beam

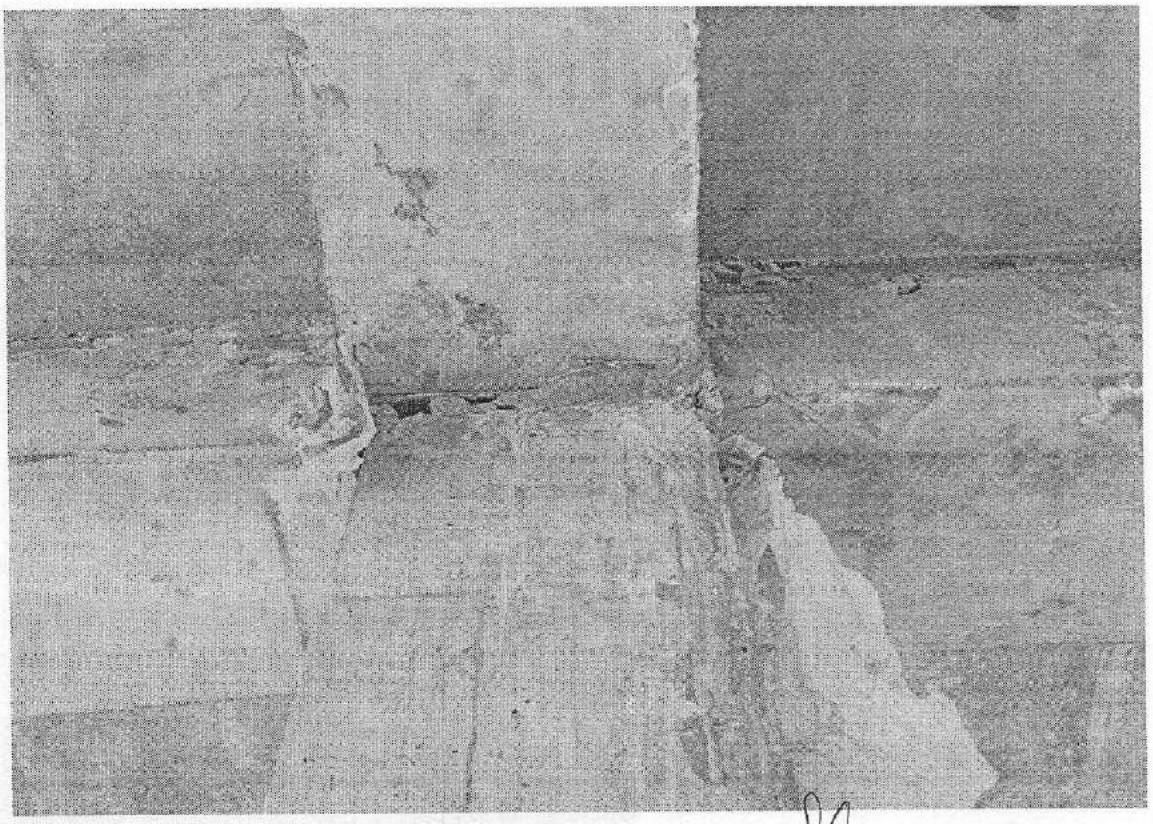


Photo showing joint of beam and column

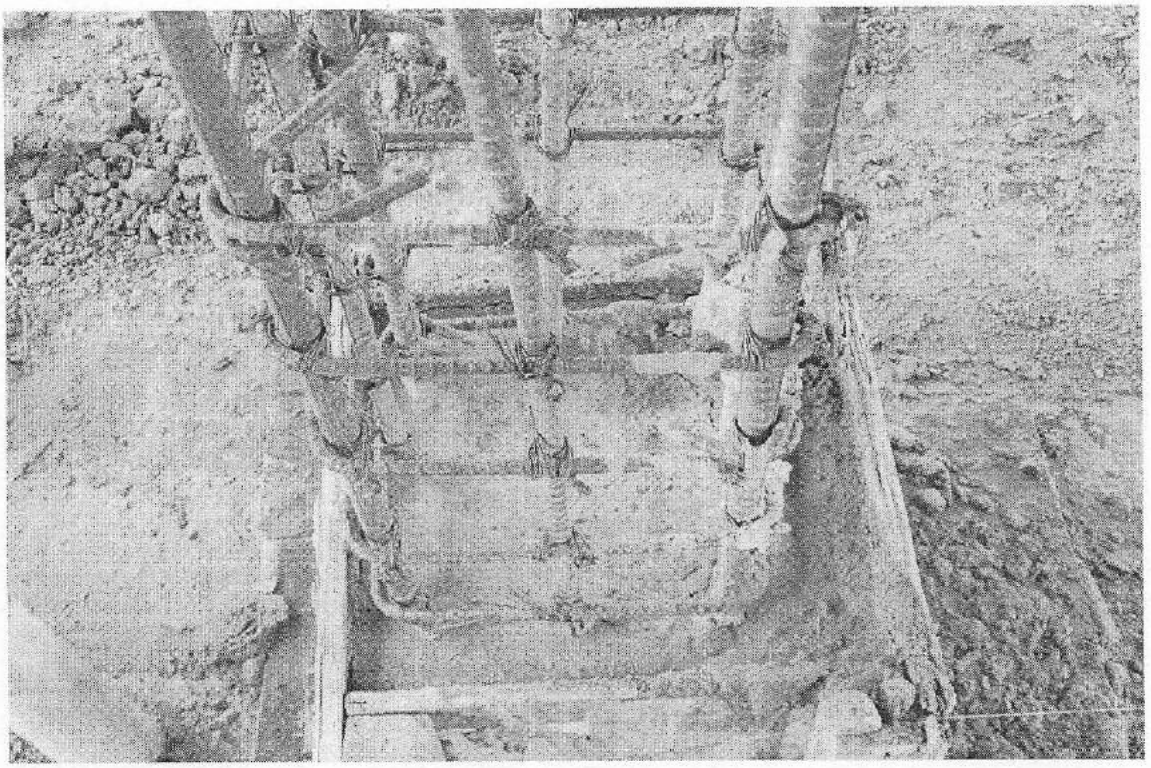


Photo of the column showing the cover in columns.

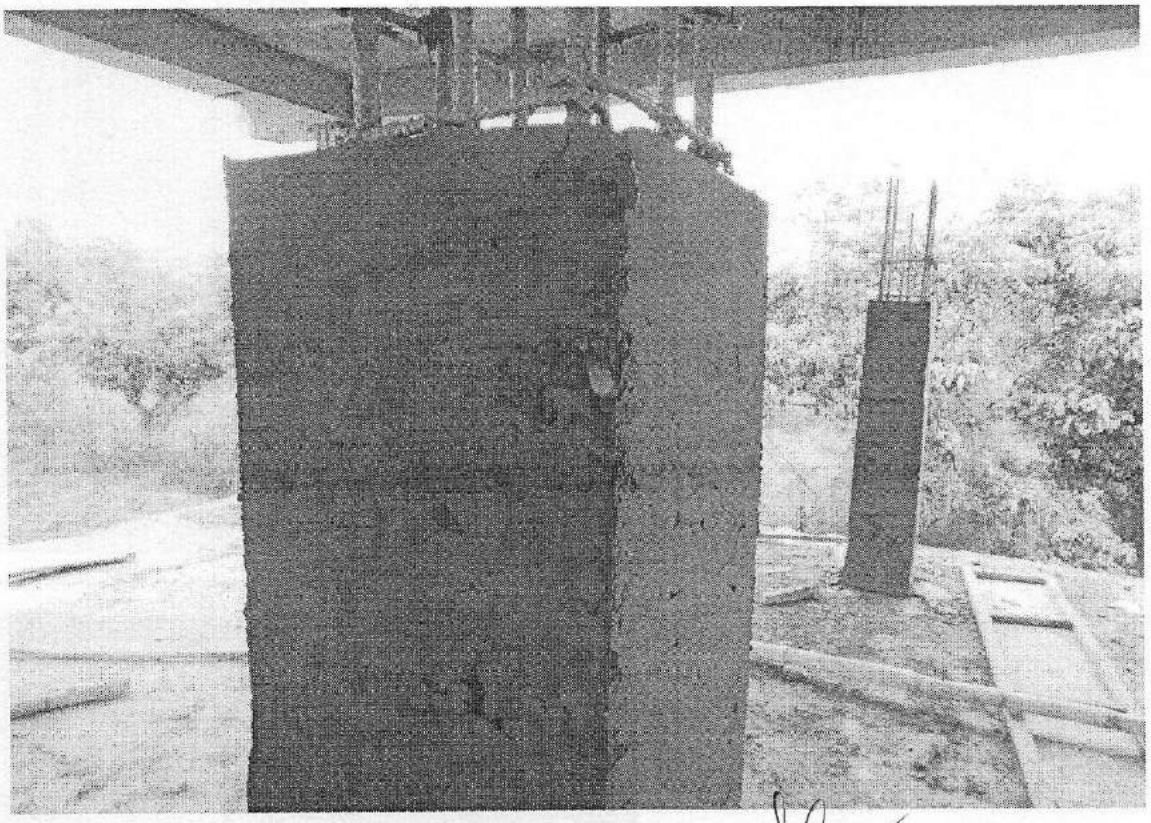


Photo showing poor quality of work.

Photo showing the measuring of Plinth Area

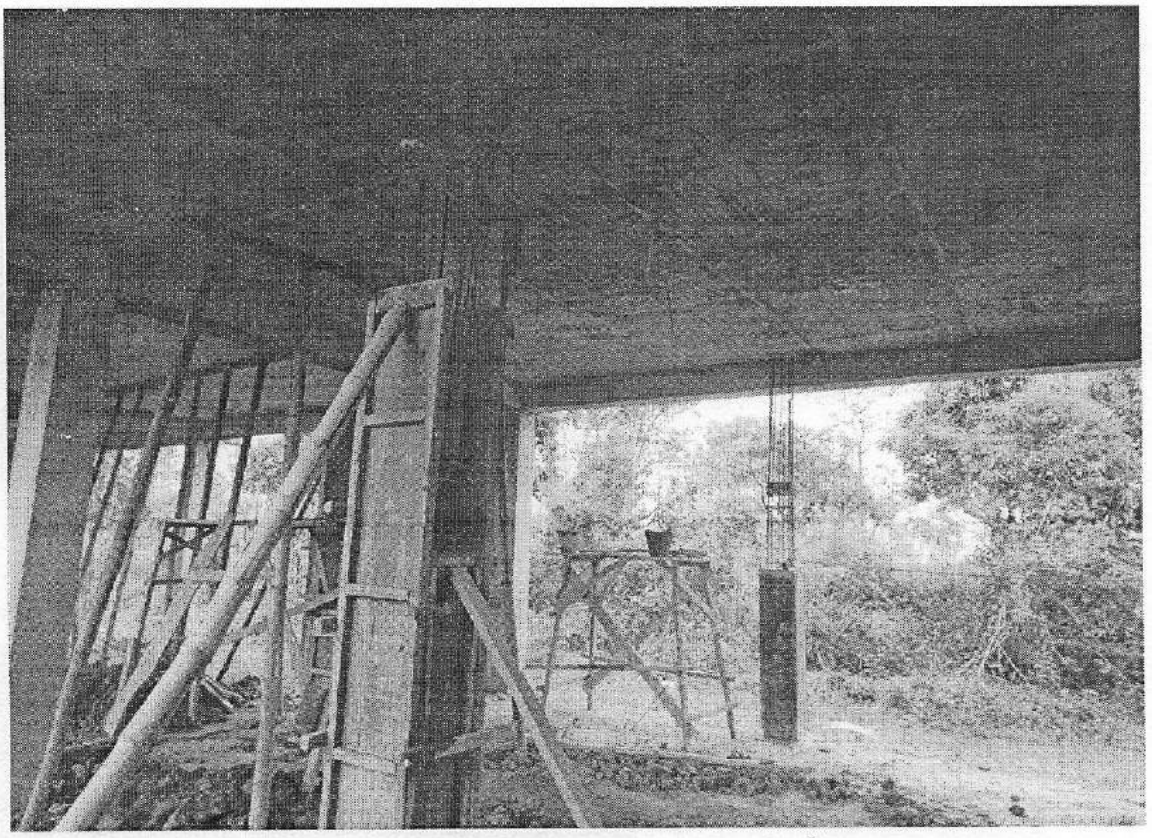
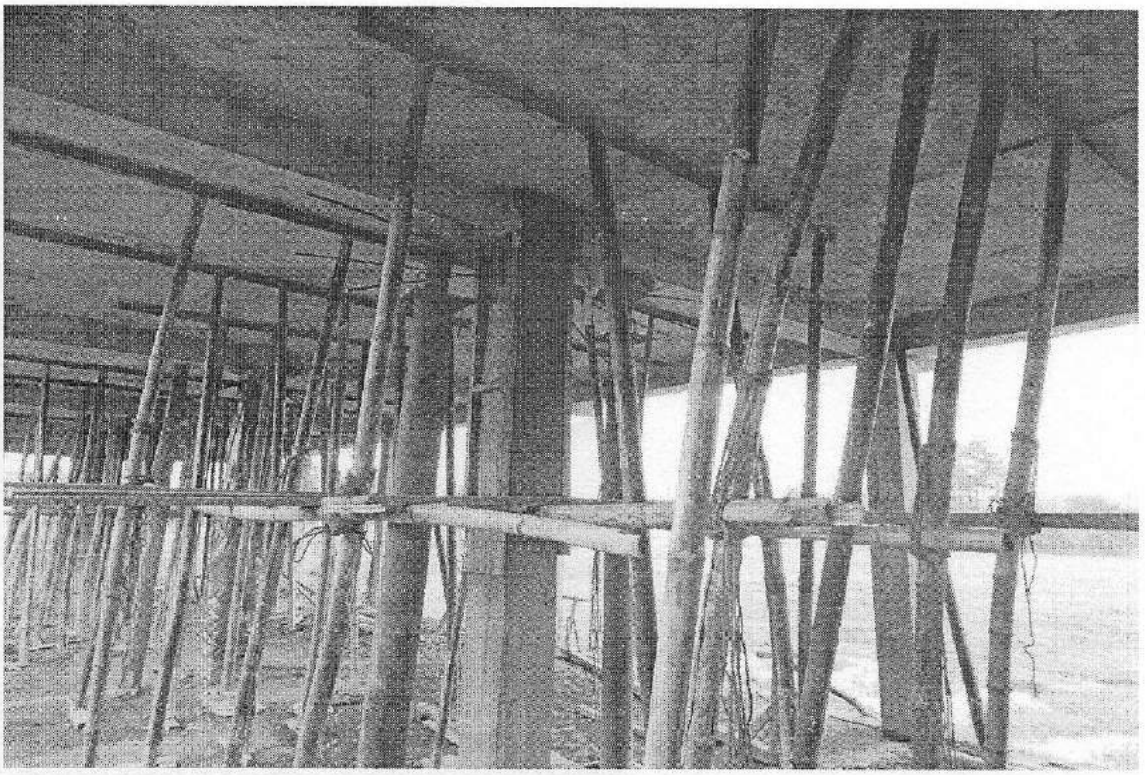


Photo of extra columns

The View of the site Construction of Sainik School



The photo showing extra column connected to the beam.

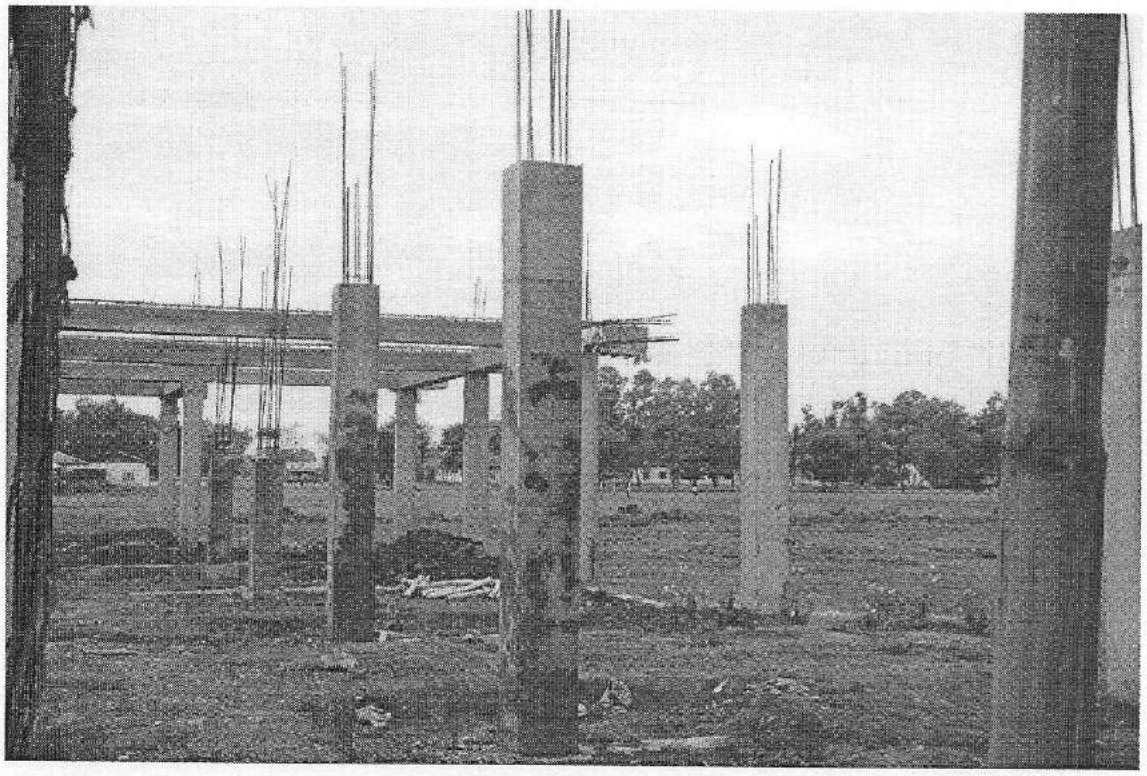


Photo of the columns and beams

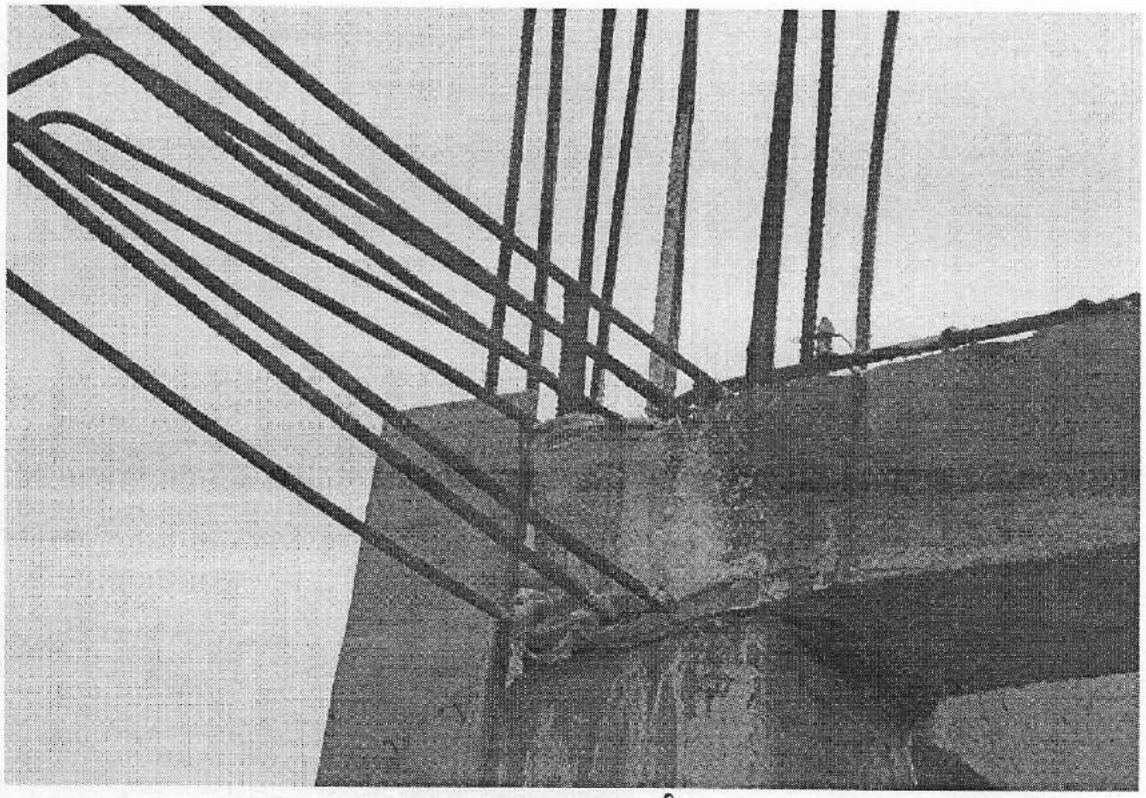


Photo showing reinforcement used in beams