Laila Styles Ltd.

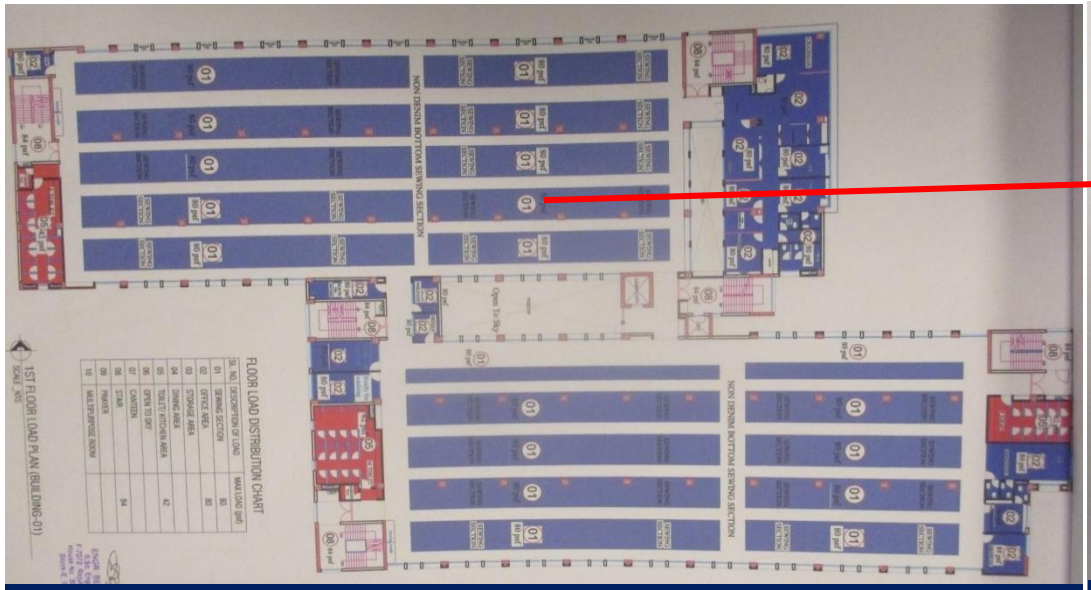
Bahadurpur, Gazipur.
(24.077527, 90.369504)
27th January 2019 & 04th February 2019

ACCORD
on Fire and Building Safety in Bangladesh

Observations

Load plan is required to be reviewed

Observations



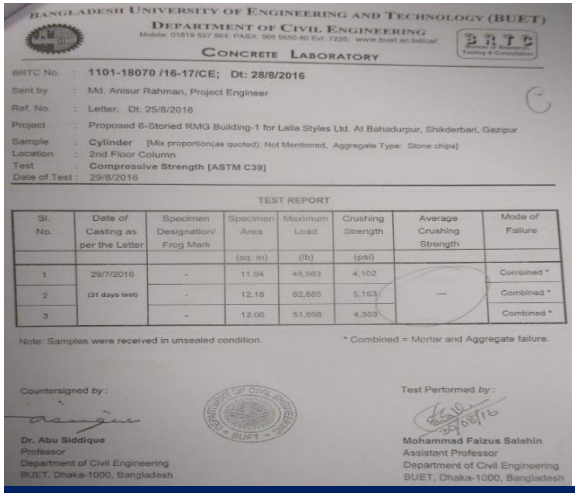
Floor loading plan

FLOOR LOAD DISTRIBUTION CHART

SL. NO.	DESCRIPTION OF LOAD	MAX LOAD (psf)
01	SEWING SECTION	80
02	OFFICE AREA	80
03	STORAGE AREA	
04	DINING AREA	
05	TOILET/ KITCHEN AREA	42
06	OPEN TO SKY	
07	CANTEEN	
08	STAIR	84
09	PRAYER	
10	MULTIPURPOSE ROOM	

Floor load distribution

We have checked the column capacity based on minimum concrete strength and found that the column stresses exceed above normal design limit considering the provided load plan. But considering 3 Kpa live load and minimum concrete strength, the column stresses are within normal design limit. The provided load plan was based on 4000 psi concrete strength of column. Insufficient number of cylinder test result from column were provided. Strength of two of the cylinder test result for column were found to be 4102 psi and 4303 psi which were not adequate for evaluation of the design concrete strength of column. Factory engineer is required to review the provided load plan.



BANGLADESH UNIVERSITY OF ENGINEERING AND TECHNOLOGY (BUET)
DEPARTMENT OF CIVIL ENGINEERING
CONCRETE LABORATORY

BRTC No. : 1101-18070 /16-17/CE; Dt: 28/8/2016
Sent by : Md. Anisur Rahman, Project Engineer
Ref. No. : Letter; Dt: 25/8/2016
Project : Proposed 6-Storied RMG Building-1 for Laila Styles Ltd. At Bahadurpur, Shikderbari, Gazipur
Sample : Cylinder [Mix proportion(as quoted): Not Mentioned, Aggregate Type: Stone chips]
Location : 2nd Floor Column
Test : Compressive Strength [ASTM C39]
Date of Test : 29/8/2016

TEST REPORT

Sl. No.	Date of Casting as per the Letter	Specimen Designation/ Frog Mark	Specimen Area (sq. in)	Maximum Load (lb)	Crushing Strength (psi)	Average Crushing Strength	Mode of Failure
1	29/7/2016 (31 days test)	-	11.94	48,983	4,102	---	Combined *
2		-	12.18	62,885	5,163		Combined *
3		-	12.06	51,898	4,303		Combined *

Note: Samples were received in unsealed condition. * Combined = Mortar and Aggregate failure.

Countersigned by :
Dr. Abu Siddique
Professor
Department of Civil Engineering
BUET, Dhaka-1000, Bangladesh

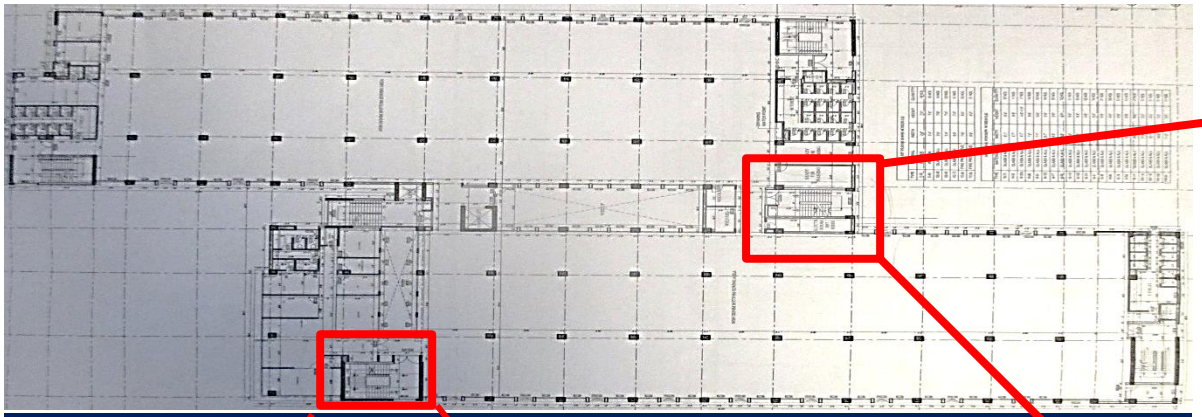
Test Performed by :
Mohammad Faizus Salehin
Assistant Professor
Department of Civil Engineering
BUET, Dhaka-1000, Bangladesh

Cylinder test report

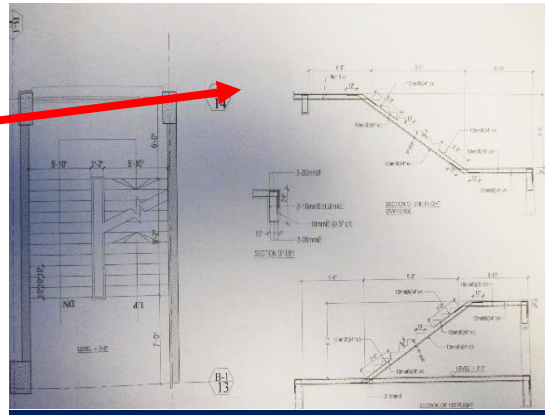
Observations: Building-1 Production Building

Discrepancies in as-built drawing

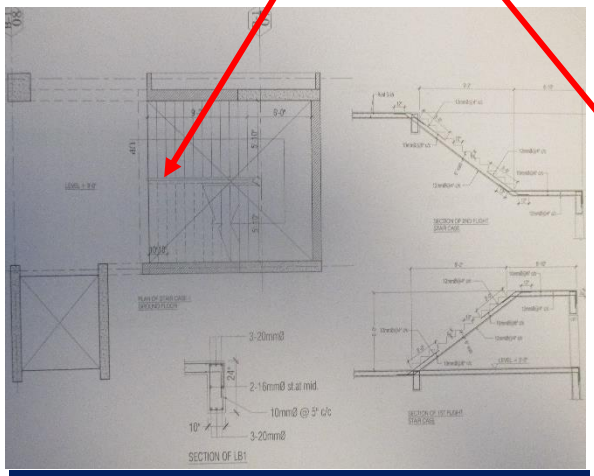
Observations: Building-1 Production Building



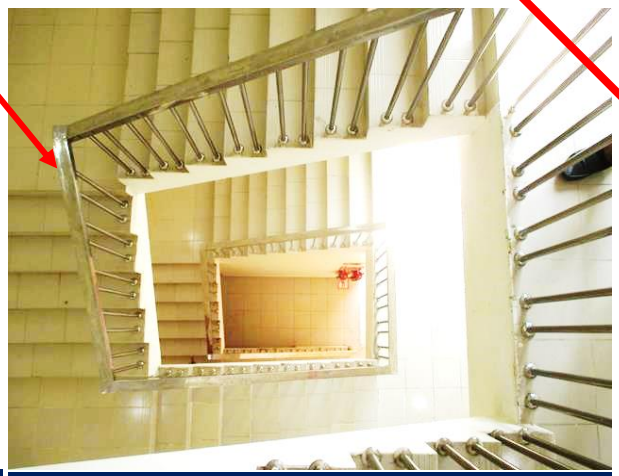
First floor working architectural plan



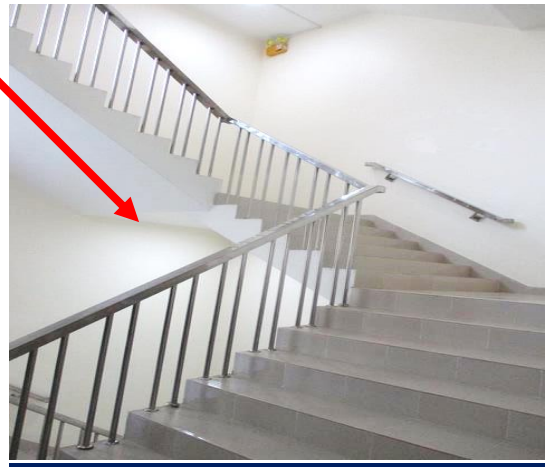
Stair case 4 details(2-flights)



Stair case-1 details (2 flights)



3 flights observed in staircase-1



Stair case-4 details(3 flights)

For Stair case-1 and Stair case-4, as-built drawing do not match with as constructed condition. In as built drawing for staircase 1shows two flights where as-constructed structure has three flights.

Observations: Building-1 Production Building

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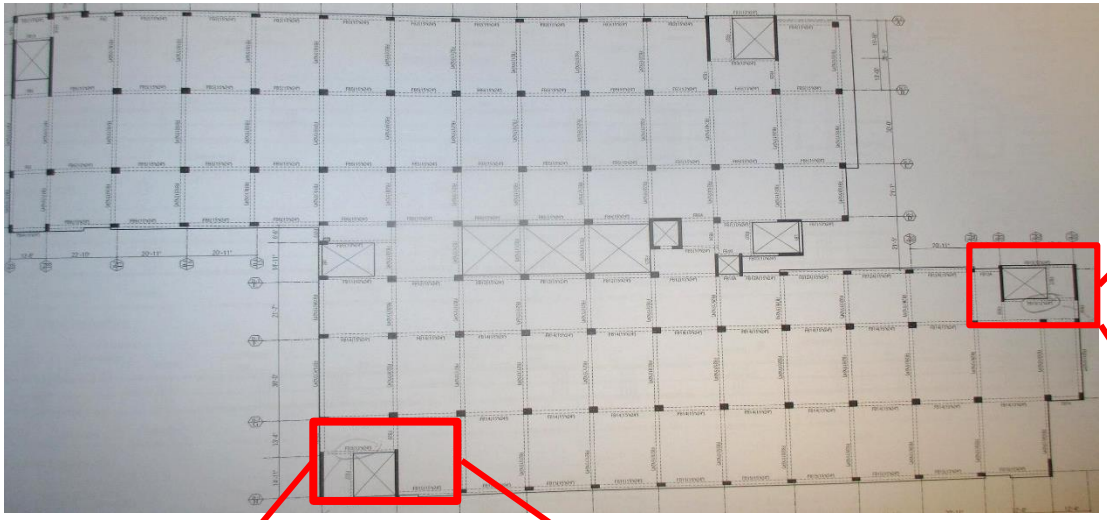
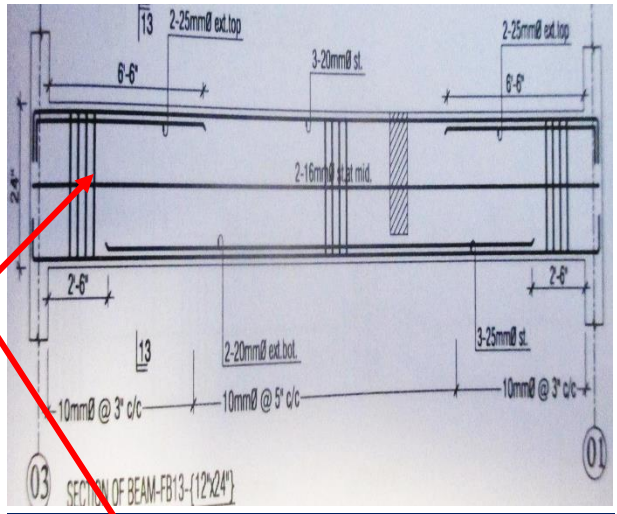
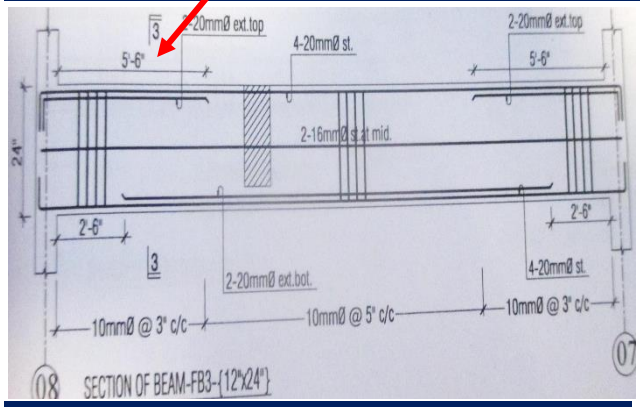


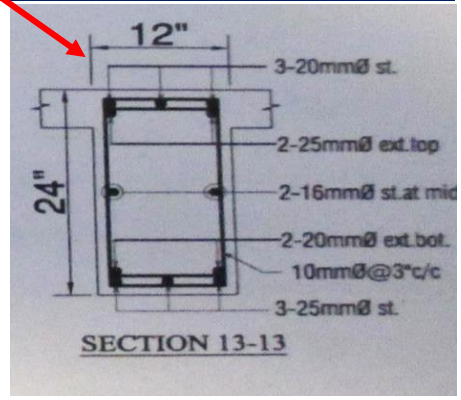
2nd to 4th floor Beam layout plan



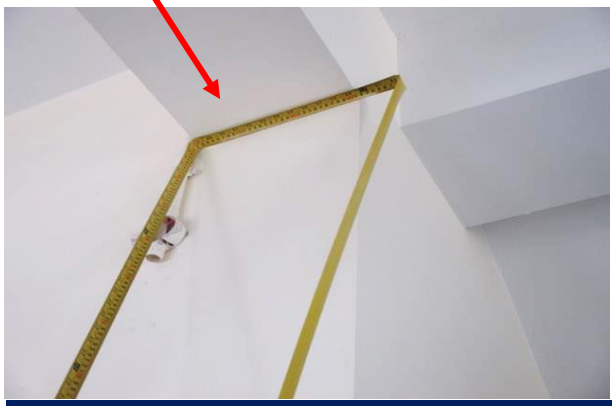
Floor beam-13 details(12”x24”)



Floor beam-3 (12”x24”)



Section details



FB-3 & FB-13 measured 10”x24”

Floor beam dimension for FB-3 & FB-13 did not match with as constructed condition. In as built drawing, FB-3 & FB-13 are shown 12’’x24” but as constructed size is 10”x24”.

Observations: Building-1 Production Building

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Columns susceptible to vehicle impact

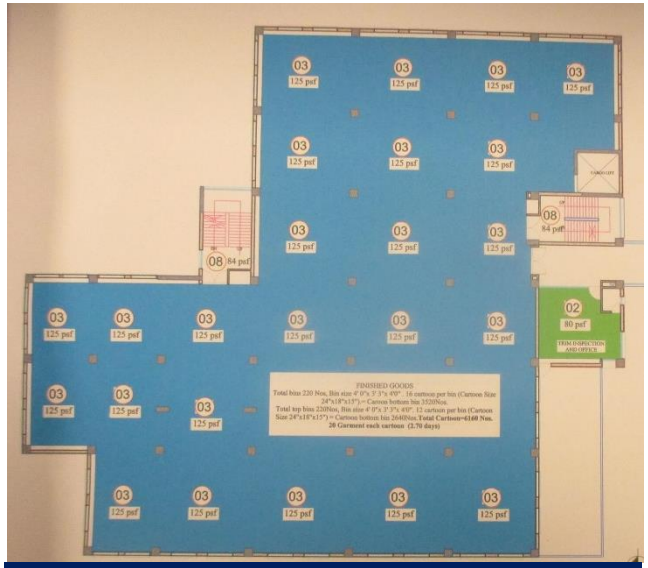
Observations: Building-2 Warehouse Building

There are no barrier around the columns at ground floor and those columns are susceptible to vehicular impact.

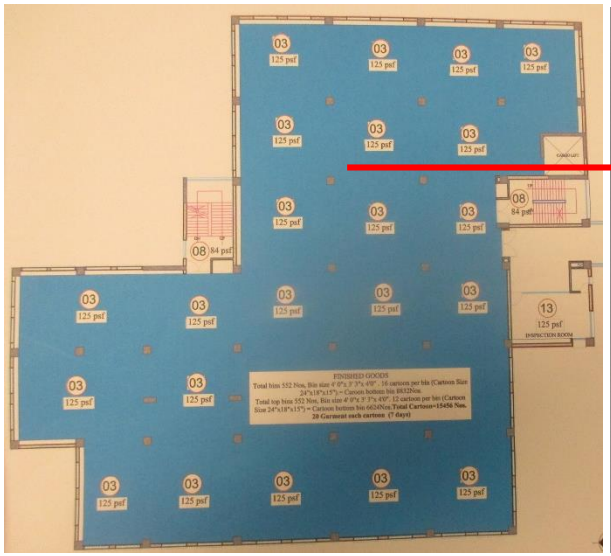
Observations: Building 2-Warehouse Building

Implement load plan

Observations: Building-2 Warehouse Building



2nd Floor Load Plan



3rd Floor Load Plan

FLOOR LOAD DISTRIBUTION CHART

SL. NO.	DESCRIPTION OF LOAD	MAX LOAD (psf)
01	CUTTING SECTION	
02	OFFICE SECTION	
03	FINISHED GOODS	125
04	TRIM STORE	
05	TOILET/ KITCHEN SECTION	
06	OPEN TO SKY	
07	CANTEEN	
08	STAIR	84
09	PRAYER	
10	MULTIPURPOSE ROOM	
11	LAB	125
12	FABRIC WARE HOUSE	
13	FABRIC INSPECTION	

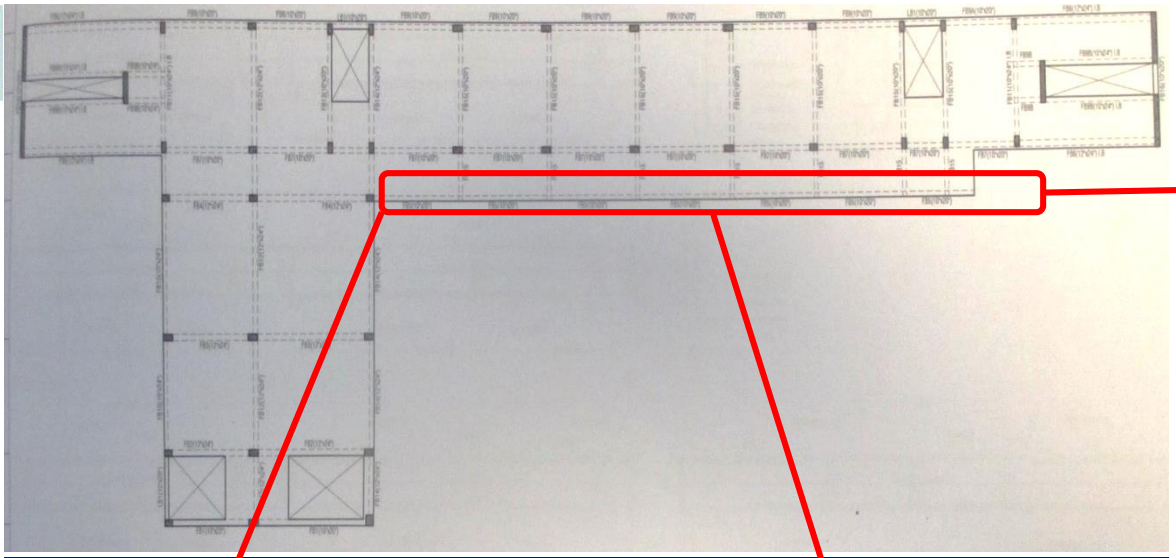
Load distribution

Maintain the load plan and ensure that the workers understand the loading requirements. The load plans are required to be posted on each floor level.

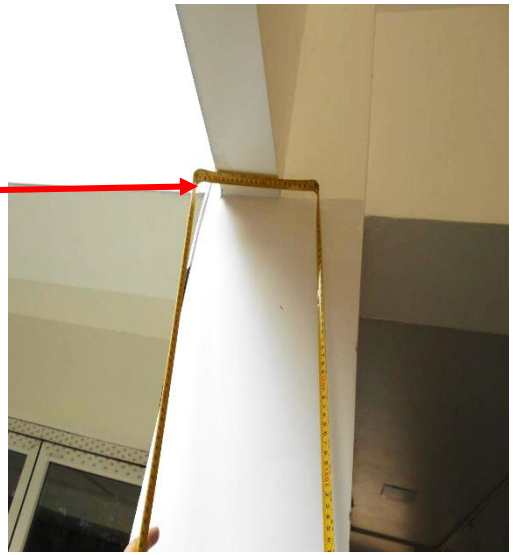
Observations: Building-2 Warehouse Building

Discrepancies in As-built Drawing

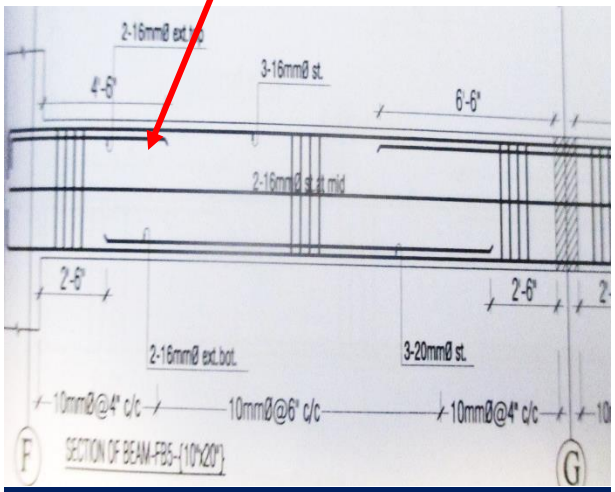
Observations: Building-4 HR Building



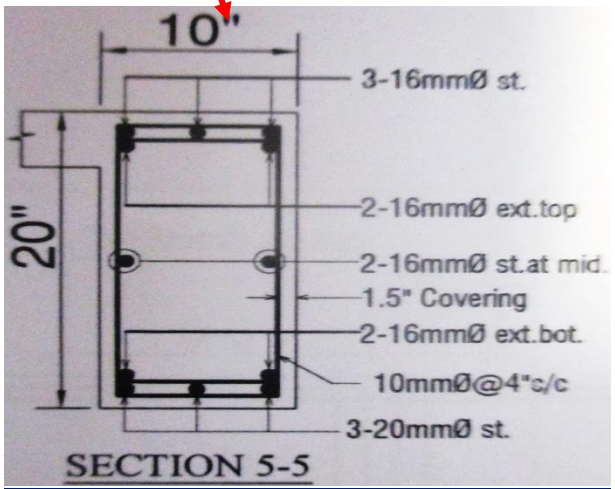
First floor roof beam layout plan



FB-5 measured to 5”x24"



FB-5 (10”x20”) details



FB-5 (10”x20”) section details

First floor and roof level beam, FB5 measured to 5” x20” whereas it is shown 10” x20” in as built drawing.

Observations: Building-4 HR Building

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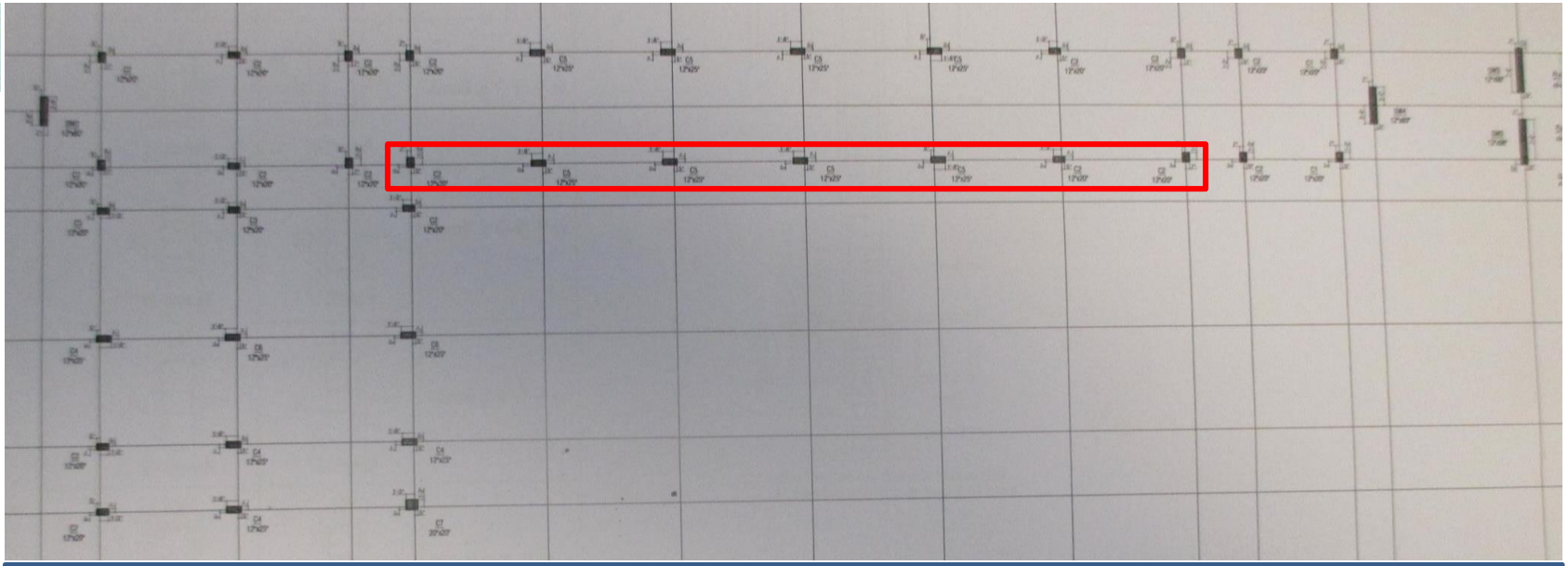

Column layout plan

Grid spacing at highlighted location do not match with on site condition.

Observations: Building-4 HR Building

Problems Observed

Building-1 Production Building

Item 1: Load plan required to be reviewed.

Item 2: Discrepancies in as-built drawing.

Building-2 Warehouse Building

Item 3: Columns susceptible to vehicle impact.

Item 4: Implement the provided load plan

Building-4 HR Building

Item 5: Discrepancies in as-built drawing.

Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	Load plan required to be reviewed (Building-1 Production Building)	Maintain 3 Kpa load on all floors.	**6-weeks**
2	Load plan required to be reviewed (Building-1 Production Building)	Produce and actively manage a loading plan for all floor plates within the factory giving consideration to floor capacity and column capacity if loading above 3kpa is considered.	**6-weeks**
3	Load plan required to be reviewed (Building-1 Production Building)	Continue to implement load plan.	**6-months**
4	Discrepancy in as-built drawing (Building-1 Production Building)	Building Engineer to prepare accurate as-built structural drawing.	**6-weeks**
5	Columns susceptible to vehicle impact (Building-2 Warehouse Building)	Install safety guard to protect the columns from vehicular impact.	**6-weeks**
6	Implement the provided load plan (Building-2 Warehouse Building)	Maintain the load plan and ensure that the workers understand the loading requirements	**6-weeks**
7	Discrepancy in as-built drawing (Building-4 HR Building)	Building Engineer to prepare accurate as-built structural drawing.	