Tanzila New building, extension

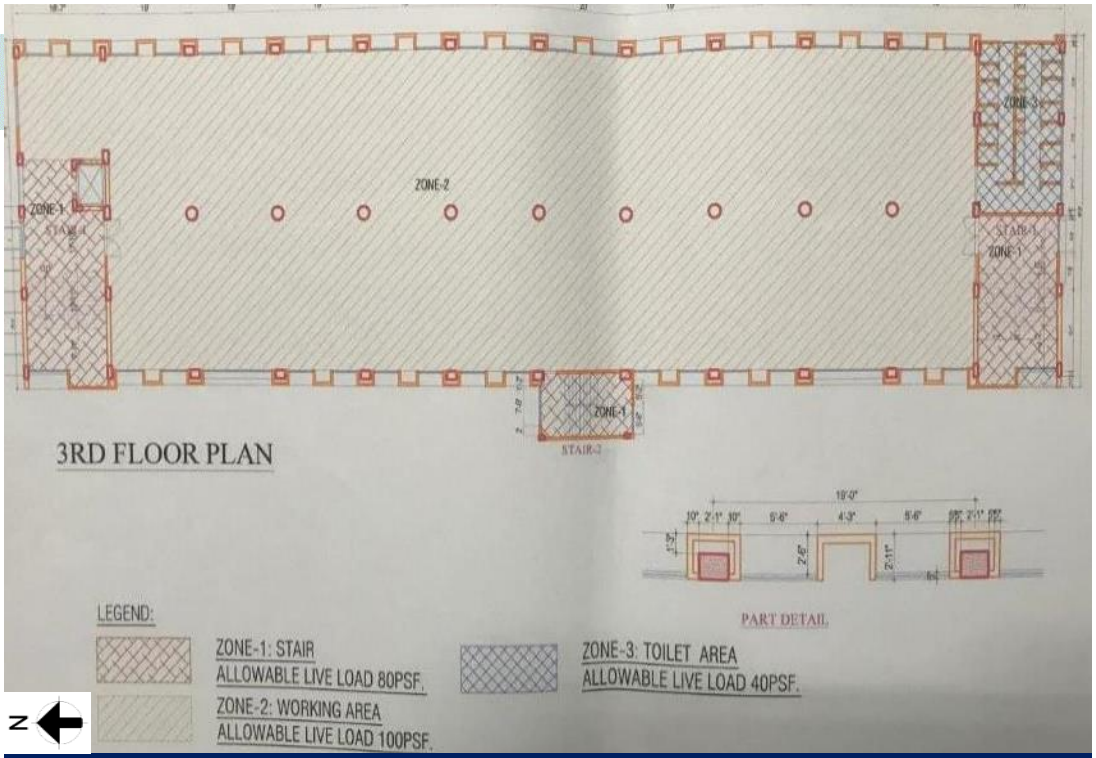
Baroypara, Ashulia, Savar, Dhaka
(24.017745N, 90.243572E)
12th March 2018

ACCORD
on Fire and Building Safety in Bangladesh

Observations

Prepared load plan required to be verified

Observation: Main production building



Factory engineer prepared a load plan for 1st to 7th floor(partial) considering 5 kPa as allowable load for production area. Factory is required to review the load plan and assess the concrete strength if factory management intends to maintain the load plan.

Load was measured below 3Kpa on every floor and FoS calculation for columns were found satisfactory. For 5kPa column stresses exceed normal design limit.

5th floor carton storage area

2nd floor storage area

Factory is required to maintain the floor live load 3 kPa until further verification by design engineer.

Observation: Main production building

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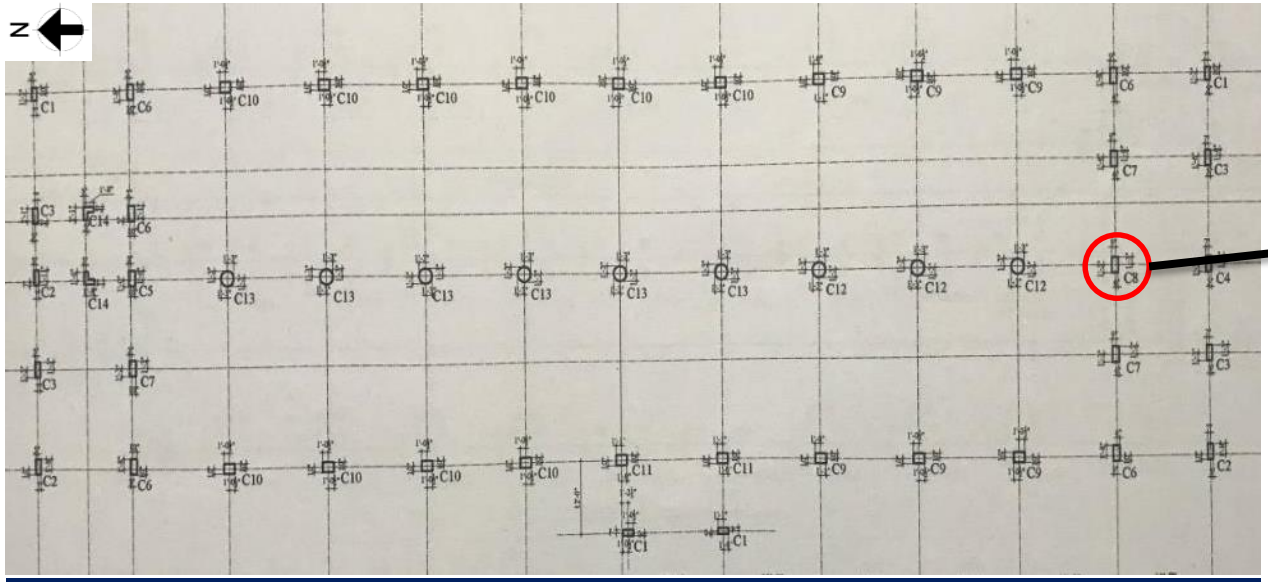
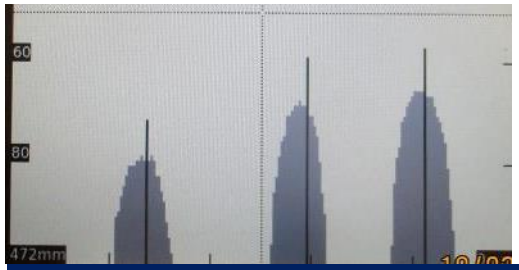
Discrepancies between drawings and on-site observation

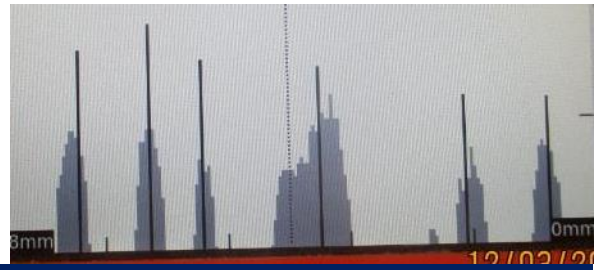
Observation: Main production building



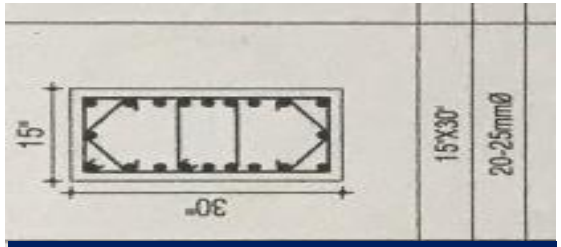
Column Layout Plan

C-8 type column





16 nos. rebar were found by ferro scanning in C-8 type column



20 nos. rebar were shown in column schedule for C-8 type column in ground floor

20 nos. rebars were shown on the drawing in C-8 type column but during inspection 16 rebars were found by ferro scanning in ground floor.

Observation: Main production building

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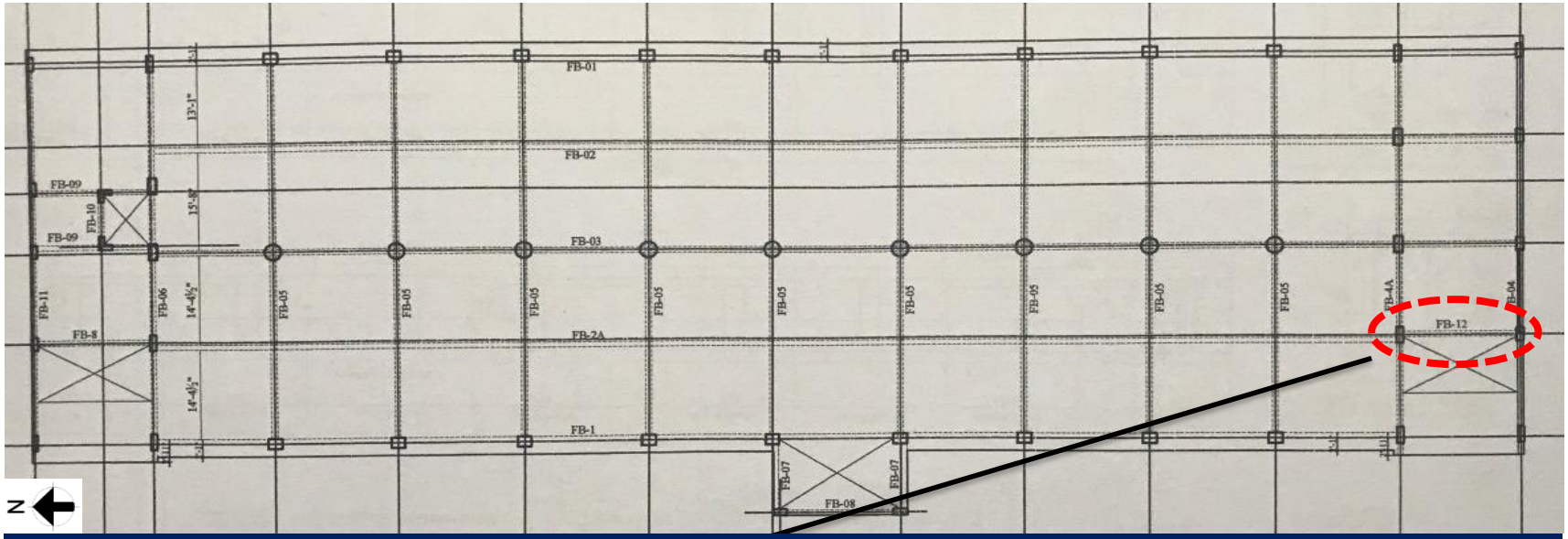


Typical Beam Layout Plan

Size was measured for FB-12 type beam in stair case

In beam layout plan, FB-12 type beam was shown but no section size and detail was found for that beam in provided drawing.

Observation: Main production building

Lack of as-built documentation

Observation: Dyeing shed building

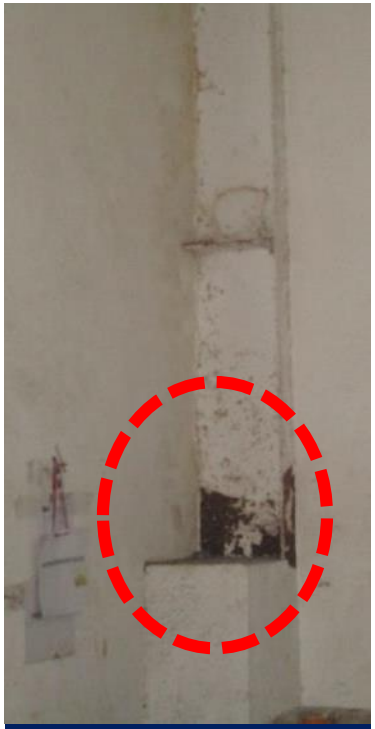
No vertical bracing or compression strut was observed on 1st floor. Only vertical bracing was observed in ground floor.

Factory could not provide any structural document of the shed. Factory Engineer is required to produce a full set of as-built drawing reflecting actual condition. Lateral stability of the shed need to verified against lateral loading.

Observation: Dyeing shed building

Corrosion observed at steel sections

Observation: Dyeing shed building



Corrosion was observed on steel column in ground floor at chemical store

Corrosion was observed at joint of angle bracing and column in ground floor

Corrosion was observed on steel column in 1st floor's printing section

Corrosion was observed on various location at 1st floor and ground floor on steel columns. Factory is required to identify all the corroded locations and take proper remedial measures.

Observation: Dyeing shed building

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Lack of as-built documentation

Observation: Grey Fabric store and Jhut store

Typical truss frame with out any horizontal or vertical bracing system in Grey fabric store

Truss were poorly welded with steel pipe column in Grey fabric store

Typical truss frame with out any horizontal or vertical bracing system in Jhut store

Truss were poorly welded with steel pipe column in Jhut store

The support condition of the steel trusses were not clear and apparently non engineered. In addition, factory could not provide any structural document of the sheds. Factory Engineer is required to produce a full set of as-built drawing reflecting actual condition. Lateral stability of those sheds need to be verified against lateral loading.

Observation: Grey Fabric store and Jhut store

Problems Observed

Main production building

Item 1: Prepared load plan required to be verified

Item 2: Discrepancies between drawings and on-site observation

Dyeing building

Item 3: Lack of as-built documentation

Item 4: Corrosion observed at steel sections

Grey fabric store and Jhut store

Item 5: Lack of as-built documentation

Priority Actions

Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	(Main production building) Prepared load plan required to be verified	Maintain 3 Kpa load on all floors.	**6-weeks**
2	(Main production building) Prepared load plan required to be verified	Factory engineer is required to review design, load and the column stresses if factory intended to implement live loading 5 kPa.	**6-weeks**
3	(Main production building) Prepared load plan required to be verified	Continue to implement load plan.	**6-months**
4	(Main production building) Discrepancies between drawings and on-site observation	Factory engineer is required to survey the structural elements properly and produce correct as built drawings.	**6-weeks**

Item No.	Observation	Recommended Action Plan	Recommended Timeline
5	(Dyeing shed building) Lack of as-built documentation	Factory engineer to survey the shed and produce as-built documentation reflecting the as constructed condition.	**6-weeks**
6	(Dyeing shed building) Lack of as-built documentation	Factory engineer to check the lateral stability of the shed against lateral loading.	**6-weeks**
7	(Dyeing shed building) Lack of as-built documentation	Carry out remedial works resulting from engineering assessment where necessary.	**6-months**
8	(Dyeing shed building) Corrosion observed at steel sections	Factory Engineer to suggest and implement proper remedial measures to protect steel sections from corrosion.	**6-weeks**
9	(Grey fabric store and Jhut store) Lack of as-built documentation	Factory engineer to survey the shed and produce as-built documentation reflecting the as constructed condition.	**6-weeks**
10	(Grey fabric store and Jhut store) Lack of as-built documentation	Factory engineer to check the lateral stability of the shed against lateral loading.	**6-weeks**
11	(Grey fabric store and Jhut store) Lack of as-built documentation	Carry out remedial works resulting from engineering assessment where necessary.	**6-months**