Sams Attire Ltd. (Extension)

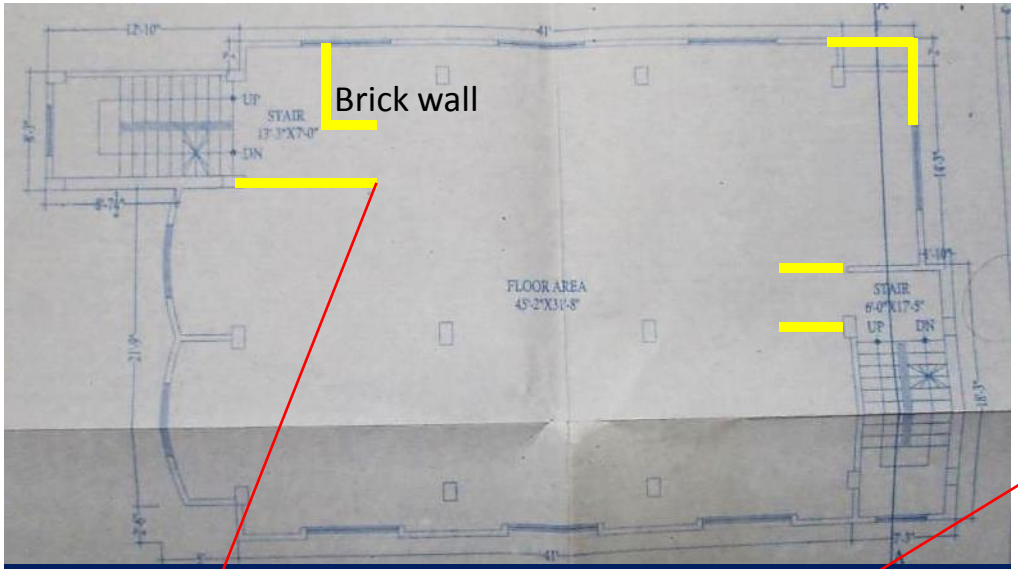
Bhuiyan Tower, Plot #10, Jamgora, Ashulia Road, Saver, Dhaka, Bangladesh
Co-ordinates: 23.936395N, 90.284708E
20th August 2019

ACCORD
on Fire and Building Safety in Bangladesh

Observations

Lack of as-built documents

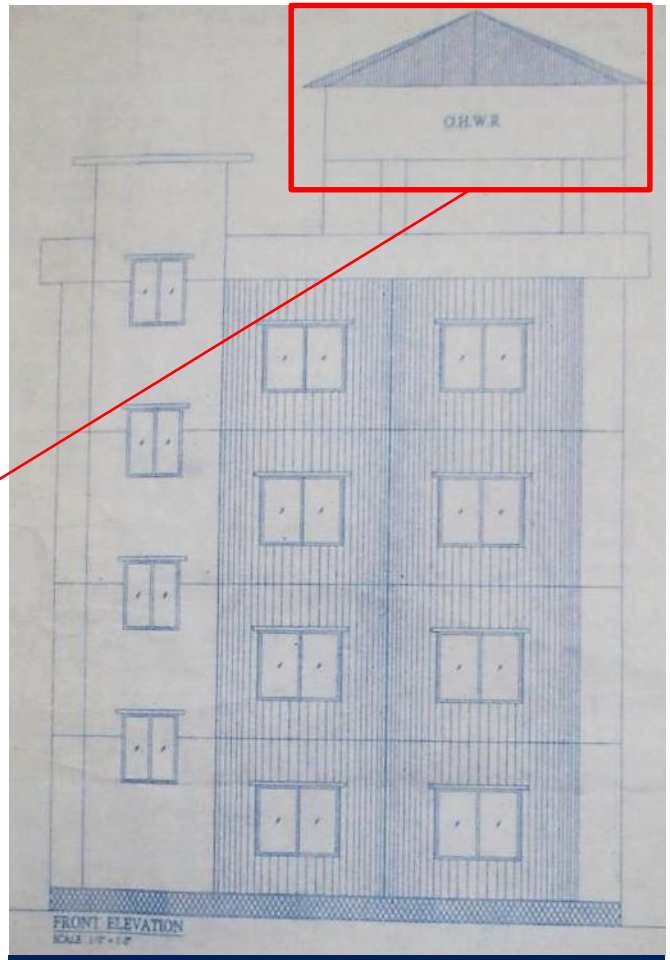
Observations: Building-2



Typical floor layout

Wall on stair zone

No OHWT on stair roof



Front Elevation

- Permit drawings not indicative to the site condition.
- Structural drawings not available.
- The factory engineer is required to survey the structure and prepare a full set of as-built drawing.

Observations: Building-2

Heavy loading on 1st floor

Observations: Building-2

No floor loading plan was available in the factory.

Heavy loading observed on 1st floor

During inspection floor loading observed above 4 kPa was on 1st floor. No load plan available during inspection. The factory engineer is required to produce a loading plan as per floor load capacity.

Observations: Building-2

Exposed rebar on roof

Observations: Building-2

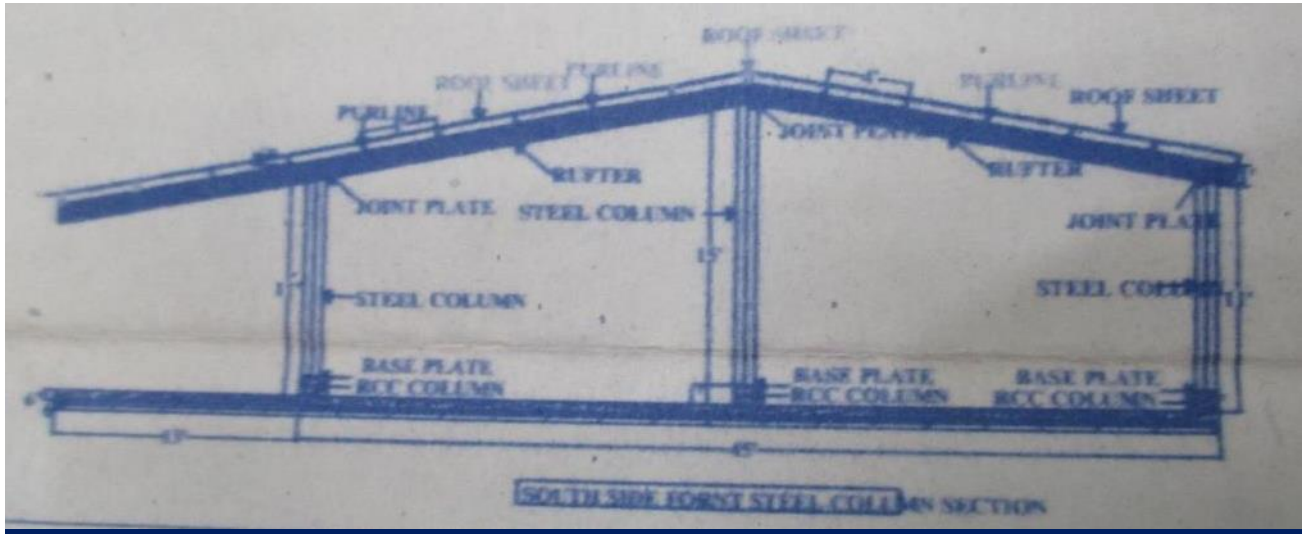
Exposed rebars on roof slab.

Exposed rebar was found on roof. Factory engineer is required to take necessary steps to protect the rebars from corrosion.

Observations: Building-2

Insufficient as-built drawing

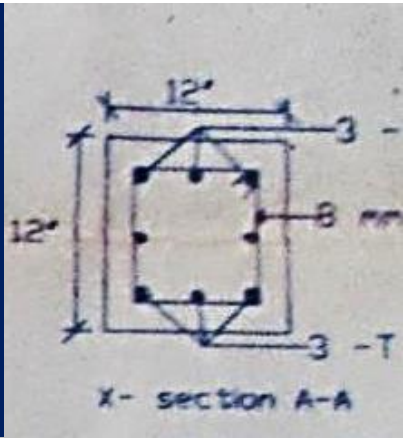
Observations: Shed-5



Column and rafter sizes and details not shown in structural drawing.

Steel post from wall not shown in drawing

8 rebar was shown in RC column where 4 rebar was found by ferro scanning. Also, column size was found 250 mm instead 300 mm.



A set of permit layout drawings was provided where detail drawings not available. Also, the reinforced concrete column size and rebar detail does not match with on site. The factory engineer is required to survey the structure and prepare a full set of as-built drawings.

Observations: Shed-5

Lateral stability system

Observations: Shed-5

No compression strut and bracing at roof

Gap in RC column-steel rafter connection

Significant gap between joint plates and support

No compression strut and bracing was observed at roof level. Also, connection gap between joint plates of column and rafter was observed in several locations. The factory engineer is required to verify the lateral stability system of the shed.

Observations: Shed-5

Corrosion and Dampness

Observations: Shed-5

Corrosion in steel column

Dampness on peripheral wall

Corrosion in steel member was observed in several locations. Also, dampness in the peripheral wall was observed in the north-east corner. The factory engineer is required engineer to investigate the reason & extent of corrosion/dampness and suggest proper remedial measure accordingly.

Observations: Shed-5

Column susceptible to vehicle impact

Observations: Shed-5

Column is susceptible to vehicle impact

Damage column

Impact protection barriers are not provided to columns which are susceptible to impact loading from vehicles.

Observations: Shed-5

Non-engineered shed

Observations: Shed-6

The shed is made by wooden frame with tin sheet and seems to be non-engineered.

Observations: Shed-6

Stability of steel mezzanine and roof truss

Observations: Shed-7

The bottom support system of steel deck

The connection and member size of roof truss and steel deck floor seems to inadequate. The factory engineer is required to check the stability of the shed for lateral and gravity loads.

Single angle provide as column

Connection between vertical member and roof truss

Observations: Shed-7

Problem observed

Building-2:

1. Lack of as-built documents.
2. Heavy loading on 1st floor.
3. Exposed rebar on roof.

Shed-5:

4. Insufficient as-built drawing.
5. Lateral stability system.
6. Corrosion and dampness.
7. Column susceptible to vehicle impact.

Shed-6:

8. Non-engineered Shed.

Shed-7:

9. Stability of steel mezzanine and roof truss.

Priority Actions

Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	Lack of as-built documents (Building-2)	The factory engineer is required to survey the structure, collect information and produce as-built architectural and structural documentations.	**6-weeks**
2	Heavy loading on 1st floor (Building-2)	Reduce loading to 3 kPa.	**Immediate - Now**
3	Heavy loading on 1st floor (Building-2)	Produce and actively manage a loading plan for all floor plates consideration to slab, beam, column and foundation capacity.	**6-weeks**
4	Heavy loading on 1st floor (Building-2)	Continue to implement floor load plan.	**6-months**
5	Exposed rebar on roof (Building-2)	Apply corrosion resistance paint to the exposed rebars.	**6-weeks**
6	Insufficient as-built drawing (Shed-5)	The factory engineer is required to survey the structure, collect information and produce as-built architectural and structural documentations.	**6-weeks**
7	Lateral stability system (Shed-5)	Carry out an engineering assessment to verify the lateral stability of the structure.	**6-weeks**
8	Lateral stability system (Shed-5)	Building engineering is required to carry out repair works on the significant gaps.	**6-weeks**
9	Lateral stability system (Shed-5)	Carry out remedial works as outcome of engineering assessment report.	**6-months**

Item No.	Observation	Recommended Action Plan	Recommended Timeline
10	Corrosion and dampness (Shed-5)	The factory engineer to investigate the reason & extent of corrosion and suggest proper remedial measure accordingly.	**6-weeks**
11	Corrosion and dampness (Shed-5)	The factory Engineer to investigate the cause of dampness at periphery wall and suggest appropriate remedial measures.	**6-weeks**
12	Corrosion and dampness (Shed-5)	Carry out remedial works where necessary.	**6-months**
13	Column susceptible to vehicle impact (Shed-5)	Factory is required to provide barrier and proper signage for the columns susceptible to vehicle impact.	**6-weeks**
14	Non-engineered shed (Shed-6)	Replace the non-engineered shed by an engineered structure. Otherwise, carry out engineering assessment for the shed.	**6-weeks**
15	Non-engineered shed (Shed-6)	Carry out remedial works suggested by the factory engineers.	**6-months**
16	Stability of steel mezzanine and roof truss (Shed-7)	As part of engineering assessment, the factory engineer is required to review design, loads and stresses of the beam & column.	**6-weeks**
17	Stability of steel mezzanine and roof truss (Shed-7)	Produce and actively manage a loading plan for the decking floor considering the beam, column capacity.	**6-weeks**
18	Stability of steel mezzanine and roof truss (Shed-7)	Carry out remedial works suggested by the factory engineers.	**6-months**