



# Green Smart Shirts Ltd.

Tapirbari, Sreepur Gazipur- 1740 |  
(24.237098N, 90.433191E)  
30<sup>th</sup> April 2018





# Observation



# Lack of stability of façade wall



Free stand façade wall



Section of façade wall, two 125 mm connected to each other.

Free standing masonry façade wall observed. Lateral stability of façade wall is required to be checked against lateral loads.

## Observation: Factory building



# Undersize bolt in sub-beam and main beam joint

5 **Observation: Factory building**



Under sized bolts were observed on several location at sub-beam to main beam connection at ground floor. Factory is required to replace the under sized bolt with bolt which was considered in connection design.



# Corrosion observed at steel sections

7 **Observation: Factory building**



Corrosion observed at Steel column at ground floor



Corrosion was observed at joint of deck slab and steel column in 1<sup>st</sup> floor

Corrosion was observed on steel columns on different locations of 1st and ground floor areas. Factory is required to identify the corroded locations and take proper remedial measures.



## Water clogging on 1st floor

**Observation: Factory building**



During inspection, water clogging was observed on 1<sup>st</sup> floor in several area. Factory is required to take measure to prevent water ingress.

## Observation: Factory building



# Implement floor load management program

**Observation: Facility building**



No load management program was being implemented. Factory is required to implement load management program as per its floor loading capacity and follow the load plans for all floors of the buildings and ensure that the workers understand the loading requirements.

## Observation: Facility building



# Missing bolt and corrosion on steel member

**Observation: Facility building**



Missing Bolt at several locations



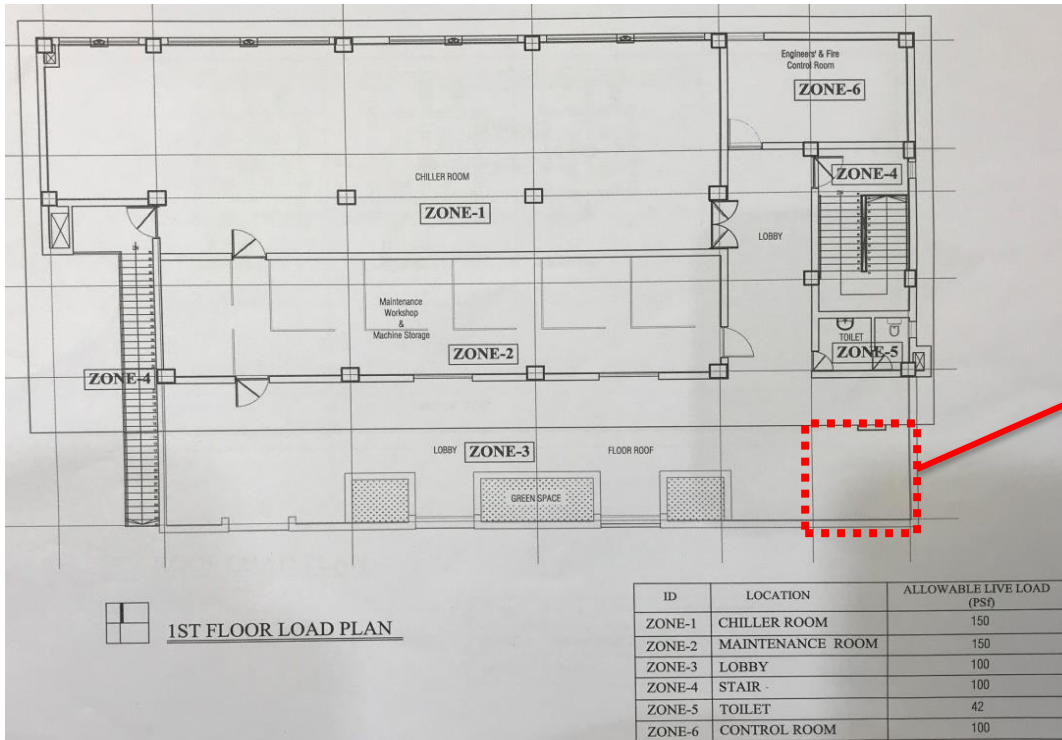
Corrosion was observed on steel columns. Factory is required to identify the locations and take proper remedial measures.

## Observation: Facility building



# Implement floor load management program

**Observation: Utility building**



Overloading was observed above 5 kPa on lobby.

Measured was found below 3Kpa on every floor except at lobby area. FoS calculation for internal column showed the capacity to be adequate considering 5kPa floor loading. Limit the loading below 5 kPa.



# Water ponding on lobby

**Observation: Utility building**



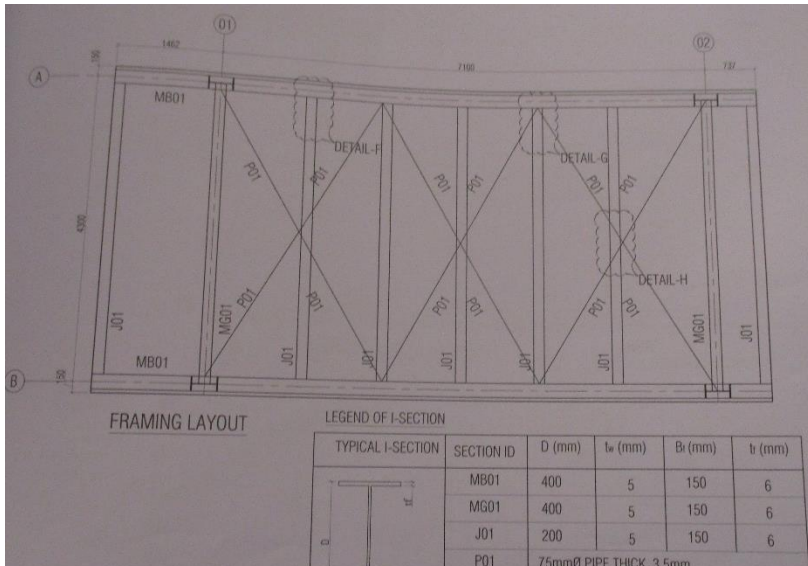
During inspection, water ponding was observed on lobby area. Factory is required to improve the drainage system for prevention of water ponding.

## Observation: Utility building



# Review the placement of bracing system

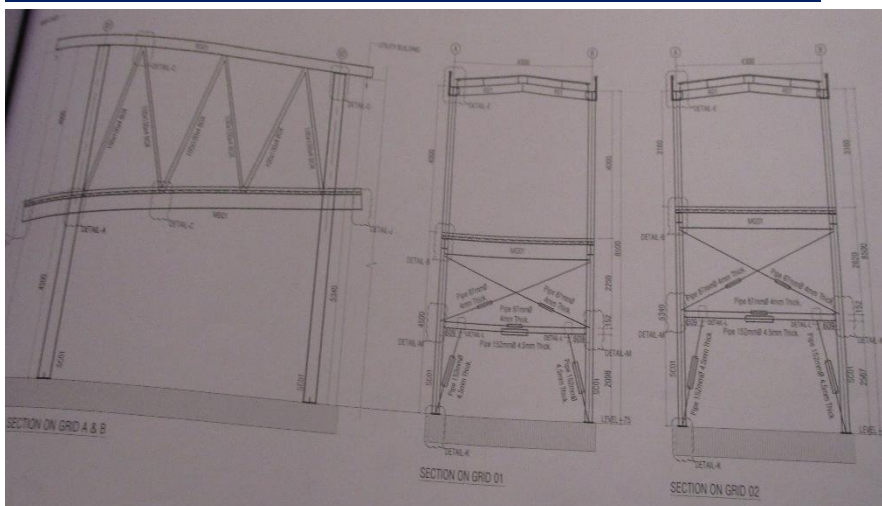
**Observation: Connecting Bridge**



Frame bracing layout of connecting bridge



Frame not installed as per drawing



Proposed vertical bracing layout



Provided bracing is blocking exit point. Building engineer is required to review design and replace bracing system.

# Observation: Connecting Bridge



# Problems Observed

## **Factory Building:**

- 1: Lack of stability of façade wall.
- 2: Undersize bolt in sub-beam and main beam joint.
- 3: Corrosion observed at steel sections.
- 4: Water clogging on 1st floor.

## **Facility Building:**

- 5: Implement floor load management program.
- 6: Missing bolt and corrosion on steel member.

## **Utility Building:**

- 7: Implement floor load management program.
- 8: Water ponding on lobby.

## **Connecting Bridge:**

- 9: Review the placement of bracing system.



Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	(Factory building) Lack of stability of façade wall in ground floor	Factory Engineer to required to check the stability of façade against the lateral loads.	6-weeks
2	(Factory building) Lack of stability of façade wall in ground floor	Carry out remedial works resulting from engineering assessment where necessary.	6-months
3	(Factory building) Undersize bolt in sub-beam and main beam joint	Replaced the undersize bolts by which was considered in connection design.	6-weeks
4	(Factory building) Corrosion observed at steel sections	Factory Engineer to suggest and implement proper remedial measures to protect steel sections from corrosion.	6-weeks
5	(Factory building) Water clogging on 1st floor	Factory is required to take measure to prevent water ingress.	6-weeks
6	(Facility building) Implement floor load management program	Maintain below 3 kPa live load on floor.	6-weeks
7	(Facility building) Implement floor load management program	Factory engineer is required to implement load management program as per its floor loading capacity.	6-weeks



Item No.	Observation	Recommended Action Plan	Recommended Timeline
8	(Facility building) Bolt missing and corrosion on steel member	Building engineer is required to identify the point where bolts are missing and installed missing bolts as per steel fabrications drawings.	6-weeks
9	(Facility building) Bolt missing and corrosion on steel member	Factory Engineer to suggest and implement proper remedial measures to protect steel sections from corrosion.	6-weeks
10	(Utility building) Implement floor load management program	Follow the load plan (5kPa) and implement load management program as per its floor loading capacity.	6-weeks
11	(Utility building) Water ponding on lobby	Factory is required to improve the drainage system for prevention of water ponding.	6-weeks
12	(Connecting Bridge) Review the placement of bracing system	Factory engineer is required to review design and replace bracing system.	6-weeks