

K.C Bottom & Shirt Wear Company

K. C. Industrial Park, Ratuti, Katchkura, Uttarkhan, Uttara, Dhaka District.
(23.859153N, 90.465239E)
12th February 2017





Observation



Tin Shed-3



**Loose bracings and existence of gap
at connections.**



Gap at rafter & column connection



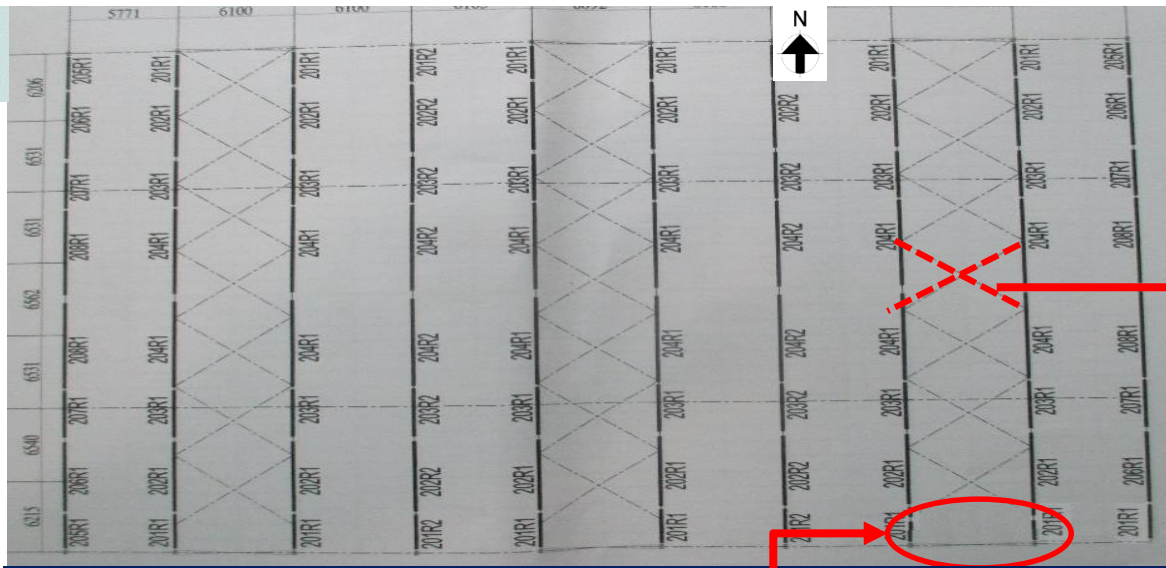
Loose vertical bracings

Gap at rafter & column connections observed throughout the shed. The vertical bracings also appeared to be loosely installed. Factory to tighten the loose connections and vertical bracings according to the suggestion given by the factory engineer.

Observation: Tin Shed-3



loose and missing bracings



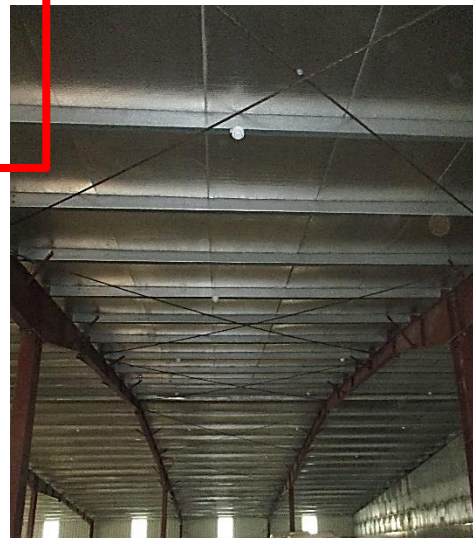
Typical bracing layout



Steel roof



Untied bracings



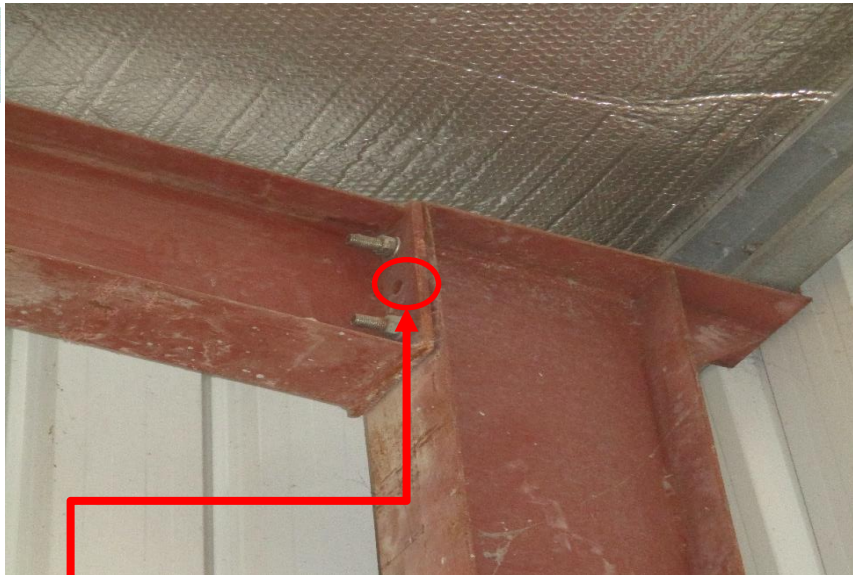
Sag in horizontal bracing

Vertical bracing are missing in highlighted area and some of the horizontal bracings are appeared to be loosely installed. Sagging of bracings was also observed in the horizontal bracing. Factory to install missing bracing and tighten all loose bracing according to the suggestion by the factory engineer.

Observation: Tin Shed-4



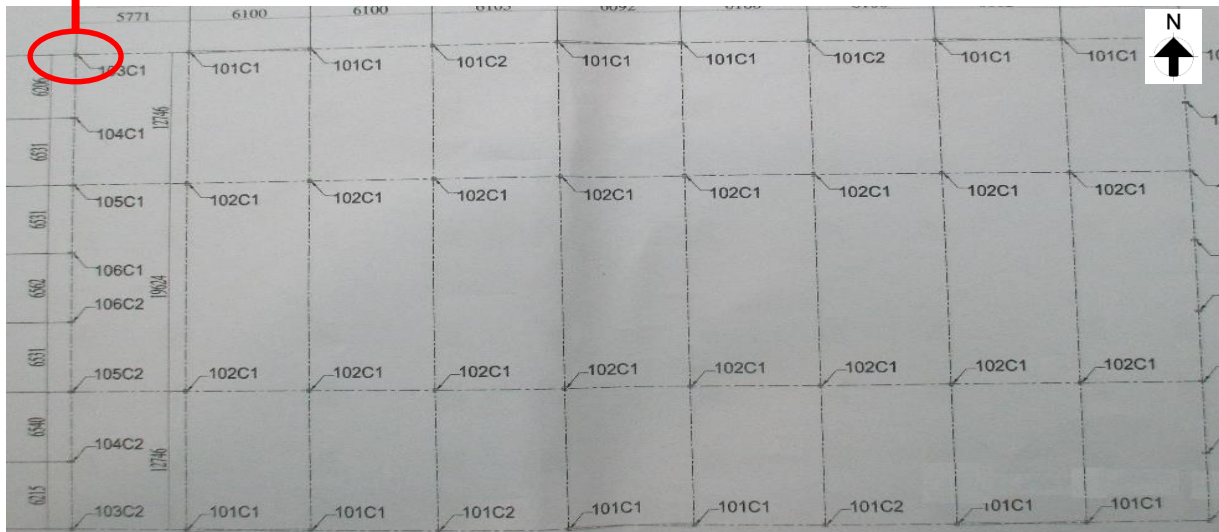
Missing bolts



Missing bolt in column-rafter Joint



Missing bolt



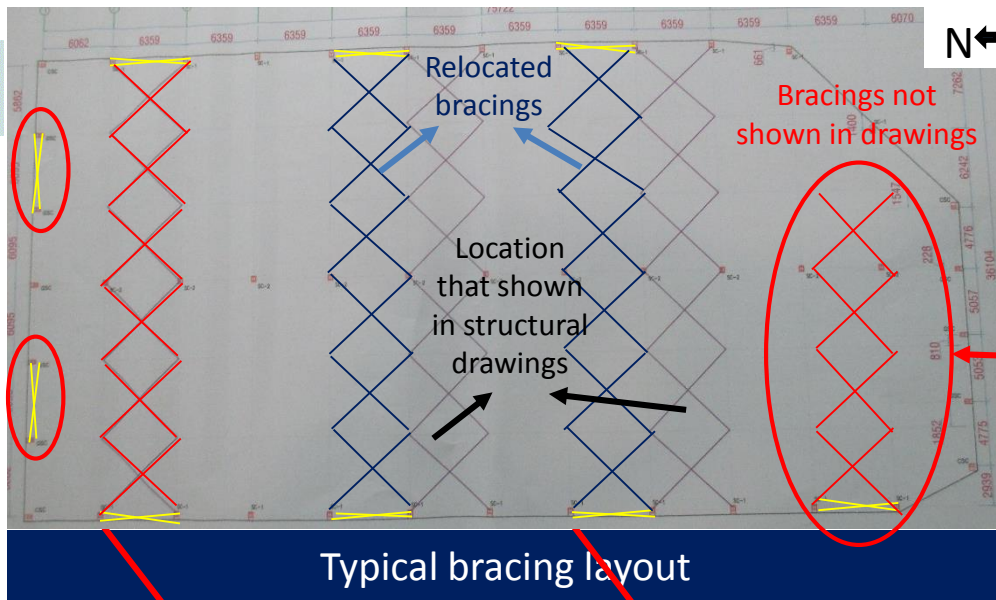
Typical column layout

Some bolts were missing in rafter joint. Factory to install all missing bolts according to the suggestion given by the factory engineer.

Observation: Tin Shed-4



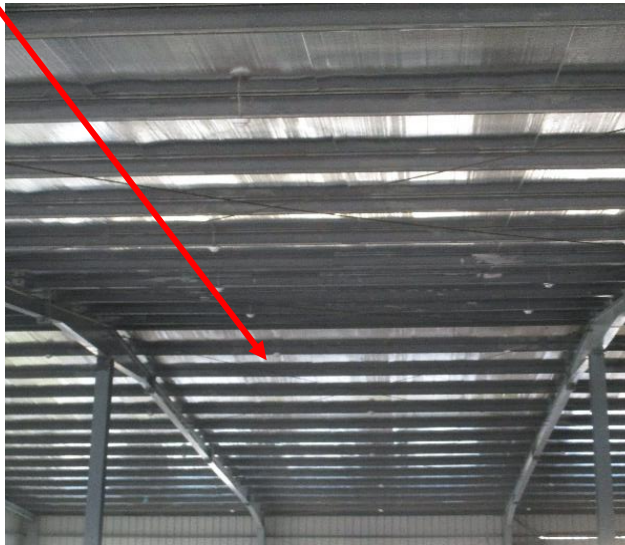
Discrepancy between provided drawing and as constructed condition



Vertical bracing not shown in drawing



Vertical bracing not shown in drawing



Bracing location are deviated from original layout

Roof bracings at mid portion of the structure were found installed at different location. Red circled bracings were not shown in drawing. Factory engineer to update as-built drawing reflecting as constructed condition and also check the lateral stability of the shed.

Observation: Tin Shed-5



Missing Bolts



Bolts are missing in some connections of steel members. Factory to install all missing bolts according to the suggestion given by the factory engineer.

Observation: Tin Shed-3



Undocumented canopy



Undocumented canopy was observed connecting Tin Shed-3 and Tin Shed-4. Factory engineer to update the as-built drawing reflecting the as-constructed condition.

Observation: Canopy



Existence of gap at connections.



Canopy connects with Tin Shed-4



Canopy connects with Tin Shed-3



Canopy between Tin Shed-3 and Tin Shed-4

Gap at connections was observed in steel members of canopy connecting Tin shed-3 with Tin Shed-4. Factory to reduce the gap and tighten the connections according to the suggestion given by the factory engineer.

Observation: Canopy



Problems Observed

Tin Shed-3:

Item 1: Loose bracings and existence of gap at connections.

Tin Shed-4:

Item 2: loose and missing bracings

Item 3: Missing Bolts

Tin Shed-5:

Item 4: Discrepancy between provided drawing and as constructed condition

Item 5: Missing bolts

Canopy:

Item 6: Undocumented canopy

Item 7: Existence of gap at connections.



Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	Loose bracings and existence of gap at connections	Factory to tighten the loose connections and also tighten the vertical bracings according to the suggestion given by the factory engineer.	6-weeks
2	loose and missing bracings	Factory to install missing bracing and tighten all loose bracing according to the suggestion by the factory engineer.	6-weeks
3	Missing Bolts	Factory to install all missing bolts according to the suggestion given by the factory engineer.	6-weeks
4	Discrepancy between provided drawing and as constructed condition	Factory engineer to updated as-built drawing reflecting as constructed condition.	6-weeks
5	Discrepancy between provided drawing and as constructed condition	Factory engineer to check the lateral stability of the shed.	6-weeks
6	Discrepancy between provided drawing and as constructed condition	Carry out remediation work if required.	6-months



Item No.	Observation	Recommended Action Plan	Recommended Timeline
7	Missing bolts (Tin Shed-5)	Factory to install all missing bolts according to the suggestion given by the factory engineer	6-weeks
8	Undocumented canopy	Factory engineer to update the as-built drawing reflecting the as-constructed condition.	6-weeks
9	Existence of gap at connections	Factory to reduce the connection gap and tighten the connections according to the suggestion given by the factory engineer	6-weeks
10	Existence of gap at connections	Factory engineer to check the stability of the structure and adequacy of the connections.	6-weeks