Max Sweater (BD) Ltd (Extension)

24,26 DIGHI BORABO,TARABO, Rupgonj, Narayangonj
Geographic Coordinates: (23.731333, 90.518678)
22 May 2023

RSC RMG SUSTAINABILITY COUNCIL

Building Information

1. Shed-4 is a single storied steel shed structure.
2. Shed 9 is a single storied steel shed structure.
3. Shed 10 is a single storied steel shed structure.
4. Shed 13 is a single storied steel shed structure.
5. Shed 14~18 is a single storied steel shed structure.
6. Shed 19 is a single storied steel shed structure.
7. Shed 20 is a single storied steel shed structure.

Observation

Structural design reports not available

Observation: All structure

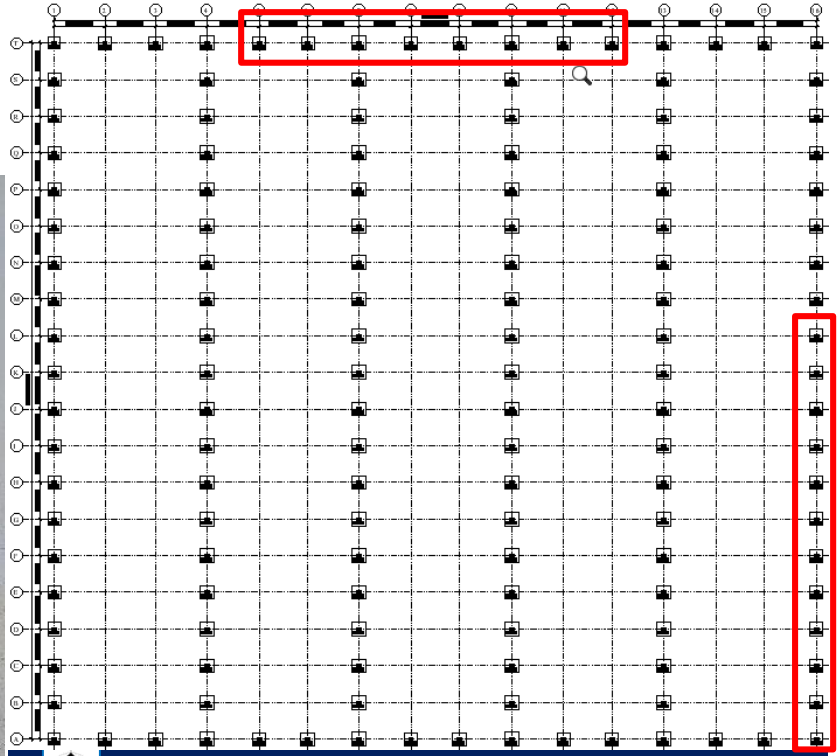
As per BNBC, building or structure shall have its design documents prepared in accordance with the provision of Section 1.9.1. The design document shall include a design report and a set of structural drawings which shall be prepared in compliance with section 1.9.1.1 and section 1.9.1.2 as per BNBC. The design report of the mentioned structures was not found which is required to be prepared in compliance with section 1.9.1.1 (part-6, BNBC).

Observation: All structure

Crack on periphery columns

Observation: Shed 4

Corrosion crack observed in periphery columns



Column Layout plan

Corrosion crack was observed in the periphery columns of the marked zone in north and east grid. Building engineer is required to investigate the crack and determine column capacity.

Observation: Shed 4

Lack of lateral stability system

Observation: Shed 4

Tie member missing in mid span

Truss tie in long direction L 50X50X6 is appeared to slender considering the length 3.66 m.

Lateral stability member in long direction appeared to be inadequate. Building engineer is required to check the lateral stability of the shed in long direction.

Observation: Shed 4

Lack of lateral stability system

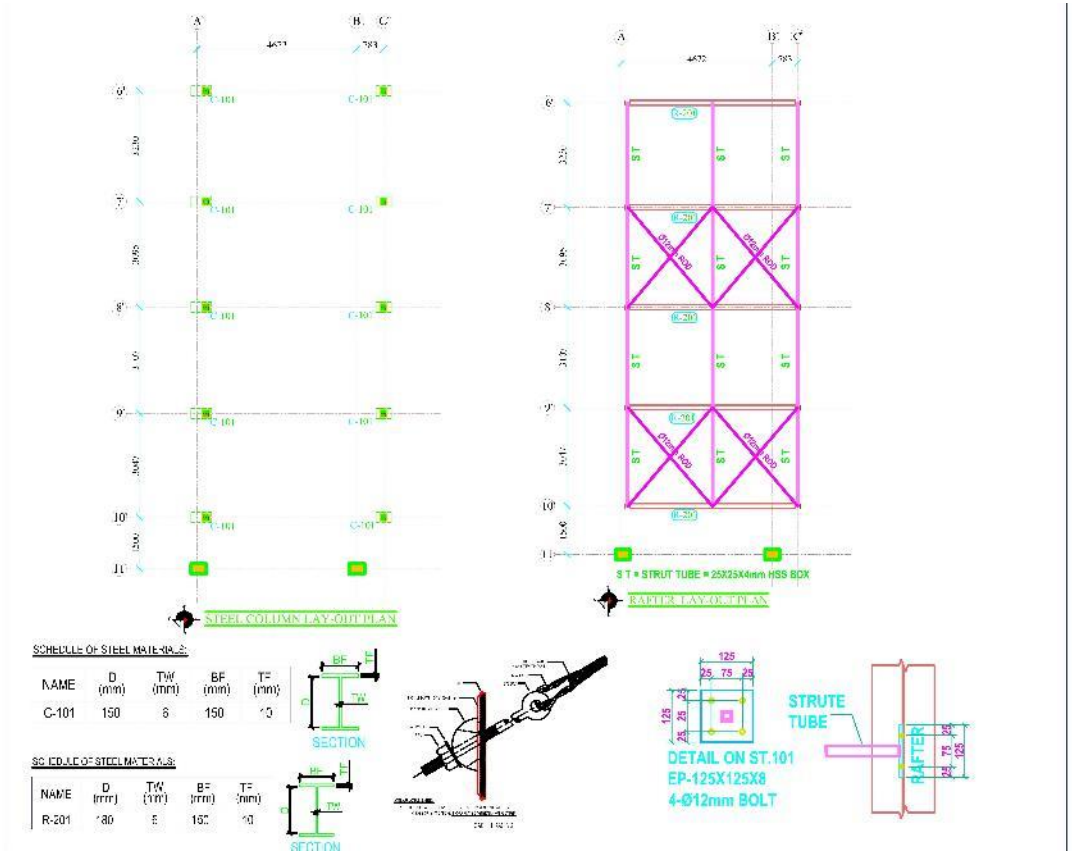
Observation: Shed 9

Roof truss system appeared in adequate for lateral stability. Also, no stability member observed for long direction. Furthermore, poor connection details observed. Building engineer is required to check the connection and lateral stability of the shed.

Observation: Shed 9

Apparently inadequate compression strut for long direction

Observation: Shed 10



Column and truss layout plan

Compression strut

Compression strut of 25X25X4 mm size apparently inadequate for taking compression load. Building engineer is required to check the capacity of compression strut.

Observation: Shed 10

Crack in roof supported brick wall

Observation: Shed 13

During inspection, brick wall crack and broken wall found at shed 13 (pump room). Building engineer is required to investigate the reason of the crack and provide remedial measure accordingly.

Observation: Shed 13

Non-engineered shed

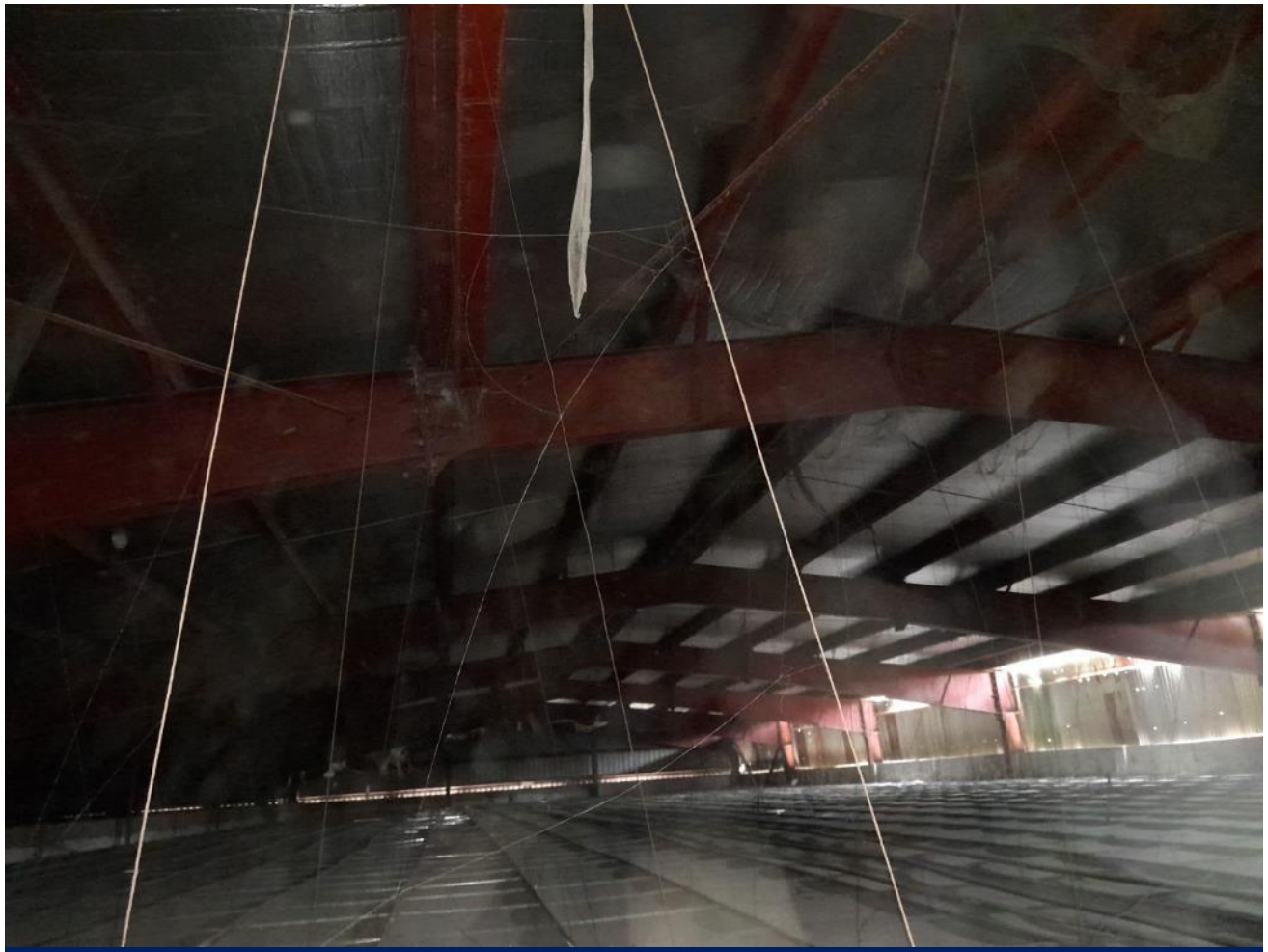
Observation: Shed 13

The shed has no other lateral stability system rather than 125 mm peripheral brick walls. Horizontal crack in the brick wall was observed which makes the wall unstable to resist lateral loads. The building engineer is required to check the lateral stability of the structure and suggest proper alternatives.

Observation: Shed 13

Apparently lack of lateral stability of portal frame along long direction

Observation: Shed 14~18

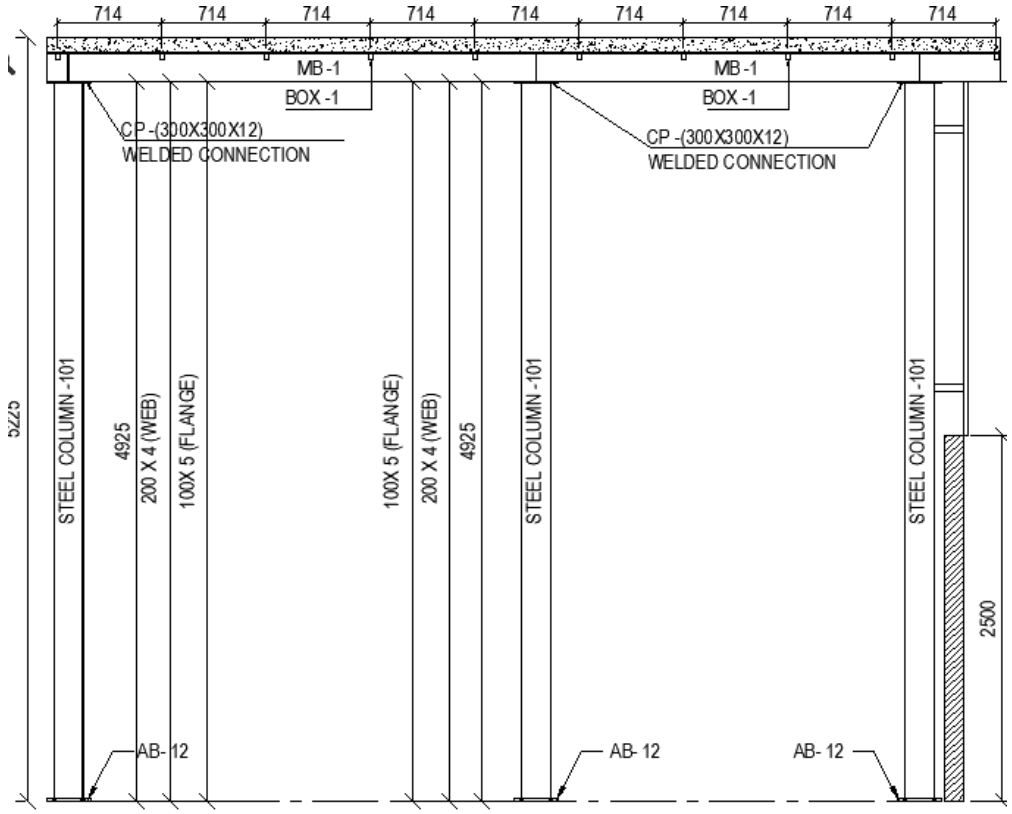


Apparently lack of lateral stability observed in the N-S direction of the shed as frame provided in the long direction. Only end bays are braced and load transfer media not provided in the short direction. Building engineer is required to check the lateral stability of the shed.

Observation: Shed 14~18

Lack of lateral stability system

Observation: Shed 20



The connections were not fully moment resisting and bracing system was not observed in the 5m high shed. Building engineer is required to check the connection and lateral stability of the shed.

Observation: Shed 20

Problems Observed

Shed- 4, 9, 10, 13, 14~18, 19 & 20:

Item 01: Structural design reports not available.

Shed 04:

Item 02: Crack on periphery columns.

Item 03: Lack of lateral stability system.

Shed 09:

Item 04: Lack of lateral stability system.

Shed 10:

Item 05: Apparently inadequate compression strut for long direction.

Shed 13:

Item 06: Crack on roof supported brick wall.

Item 07: Non-engineered shed.

Shed- 14~18:

Item 08: Apparently lack of lateral stability system in long direction.

Shed 20:

Item 09: Lack of lateral stability system.

Priority Actions

Item No.	Observation	Recommended Action Plan	Recommended Timeline
01	Structural design reports not available. (Shed- 4, 9, 10, 13, 14~18, 19 & 20).	Building engineer is required to prepare a set of design documents including the architectural & structural drawings, design reports as per BNBC 1.9.1.	6-weeks
02	Structural design reports not available. (Shed- 4, 9, 10, 13, 14~18, 19 & 20).	Perform software-based structural analysis based on in-situ material strength and suggest necessary remedial actions in the design report.	6-weeks
03	Structural design reports not available. (Shed- 4, 9, 10, 13, 14~18, 19 & 20).	Carry out remedial works where required.	6-months
04	Crack on periphery columns. (Shed 4)	Building engineer is required to investigate the crack and determine column capacity.	6-weeks
05	Crack on periphery columns. (Shed 4)	Carry out remedial works where necessary.	6-weeks

Item No.	Observation	Recommended Action Plan	Recommended Timeline
06	Lack of lateral stability system. (Shed 4)	Building engineer is required to check the lateral stability of the shed in long direction.	6-weeks
07	Lack of lateral stability system. (Shed 4)	Carry out remedial works where necessary.	6-months
08	Lack of lateral stability system. (Shed 9)	Building engineer is required to check the lateral stability of the shed.	6-weeks
09	Lack of lateral stability system. (Shed 9)	Carry out remedial works where necessary.	6-months
10	Apparently inadequate compression strut for long direction (Shed 10)	Building engineer is required to check the capacity of compression strut and suggest necessary remedial actions.	6-weeks

Item No.	Observation	Recommended Action Plan	Recommended Timeline
11	Apparently inadequate compression strut for long direction (Shed 10)	Carry out remedial works where necessary.	6-months
12	Crack in roof supported brick wall. (Shed 13)	Building engineer is required to investigate the reason of the crack and provide remedial measure accordingly.	6-weeks
13	Crack in roof supported brick wall. (Shed 13)	Carry out remedial works where necessary.	6-months
14	Non-engineered sheds. (Shed 13)	The building engineer is required to check the lateral stability of the structure and suggest proper alternatives.	6-weeks
15	Non-engineered sheds. (Shed 13)	Carry out remedial works where necessary.	6-months

Item No.	Observation	Recommended Action Plan	Recommended Timeline
16	Apparently lack of lateral stability system in long direction. (Shed 14~18)	Building engineer is required to check the lateral stability of the shed and suggest necessary remedial actions.	6-weeks
17	Apparently lack of lateral stability system in long direction. (Shed 14~18)	Carry out remedial works where necessary.	6-months
18	Lack of lateral stability system. (Shed 20)	Building engineer is required to check the connections & lateral stability of the shed and suggest necessary remedial action accordingly.	6-weeks
19	Lack of lateral stability system. (Shed 20)	Carry out remedial works where necessary.	6-months