

Oasis Fashion Limited

591 Gacha Board Bazar Gazipur

(23.941726N, 90.384181E)

6 February 2022



Building Information:

Main Building: 4 storied (B+G+3) building with a basement floor.

Utility Shed: Single-storied shed.

Observations

Lack of lateral stability system



RC column and flat plate system



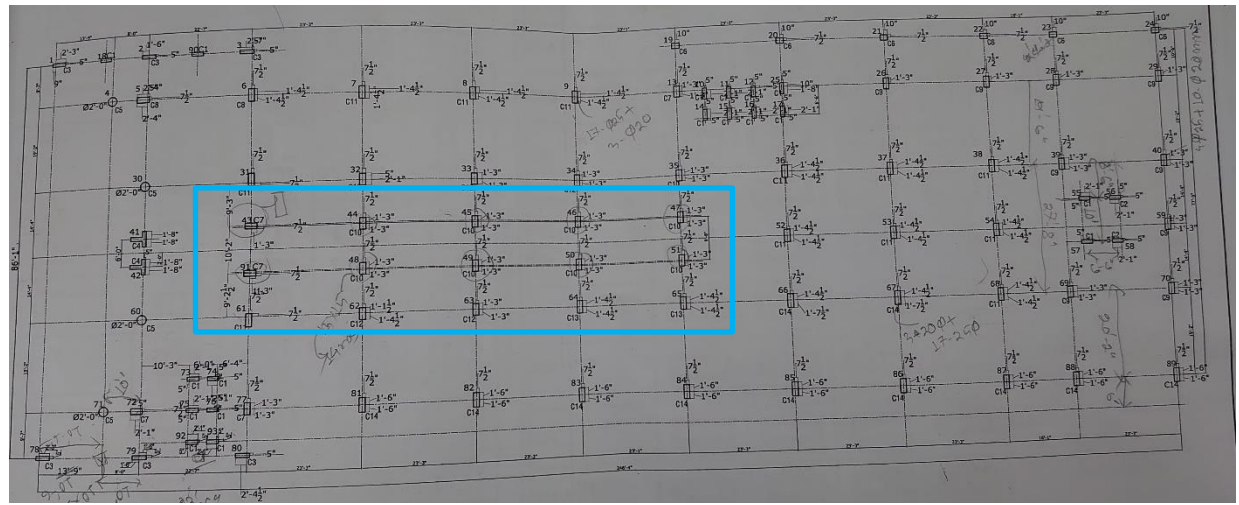
Exterior of the building

The building framing system (consists of RC columns & the flat plate) has no shear wall or other means to provide lateral stability against wind and seismic forces. The building engineer is required to check the lateral stability of the structure and provide necessary alternatives. Also, during the inspection, any design report was not available for this building which is required to be prepared in compliance with section 1.9.1 (part-6, BNBC).

Mismatch in as-built drawings



On site column C10 (15"x15")



C10 column marked in column layout

During visit size of C10 column was observed 15"x15" with 14 nos rebar. However, in structural drawing size of C10 column was 15"x30". The building engineer is required to survey the structures and update drawings to the as-constructed status.

			
		14-32 mmØ	14-25 mmØ
		15"x30"	15"x30"
C10	35		
		14-32 mmØ	14-25 mmØ
C10-A	44,45,46,47, 48,49,50 & 51		
		15"x30"	15"x30"
		6-32 mmØ + 8-25 mm	4-25 mmØ +10-25mm

Column Schedule

Future Vertical Extension



The building permit layout is for 12 storied structure. The building can be extended vertically in future. However, till the date of this inspection, building was constructed up-to four stories. Prior to vertical extension above four stories, factory engineer is required to produce Detailed Engineering Assessment (DEA) for the further vertical extension of the structure according to BNBC and submit to RSC for review.



Non-Engineered roof shed over staircase



Poor connection details



Inadequate structural members

The steel roof shed made of truss section which is supported by brick wall over the staircase. Apparently inadequate structural member, poor connection details found. Building engineer is required to check the adequacy of the steel members & connection for gravity and lateral forces otherwise replace with the engineered roof.

Water ponding on roof



Water ponding on the roof



Construction debris on the roof

Stagnant of water and construction debris was observed on the roof. The roof slab is made by MCAC. Factory is required to remove construction debris, develop proper roof drainage system with adequate slope, outlets and apply water proofing compound on the roof slab to resist water ingress into the slab.

Corroded and exposed rebar at roof



Corrosion was observed on exposed reinforcements on roof top columns. All exposed reinforcements are to be protected from corrosion which may cause degradation of the concrete.

Lack of as-built drawing

Observation: Utility Shed



Utility Shed

No as-built drawing was provided for the utility shed. Factory engineer is required to prepare full set of as-built drawings for this structure.

Observation: Utility Shed

Apparently non-engineered shed



Poor connection details



Apparently inadequate structural members

Apparently Inadequate structural member, poor connection details found. Building engineer is required to check the adequacy of the steel members & connection for uplift and lateral forces otherwise replace with engineered structure.

Problems Observed

Main Building:

Item 01: Lack of lateral stability system

Item 02: Mismatch in as-built drawings.

Item 03: Future vertical Extension

Item 04: Non-engineered roof shed over staircase

Item 05: Water ponding on roof

Item 06: Corroded and exposed rebar at roof

Utility Shed:

Item 07: Lack of as-built drawings.

Item 08: Apparently non-engineered shed.

Priority Actions

Item No.	Observation	Recommended Action Plan	Recommended Timeline
01	Lack of lateral stability system. (Main Building)	As part of engineering assessment (EA), The building engineer is required to check the lateral stability of the structure and provide necessary alternatives.	6-weeks
02	Lack of lateral stability system. (Main Building)	Building engineer to prepare the design document including an Engineering Assessment (EA) report for the structure, in compliance with section 1.9.1.1 , part-6 of BNBC.	6-weeks
03	Lack of lateral stability system. (Main Building)	Carry out necessary remedial works as per EA recommendation.	6-months
04	Mismatch in as-built drawings. (Main Building)	Building engineer is required to survey the whole structure and prepare “as constructed” drawings (Architectural & Structural), in compliance with section 1.9.1.2 as per BNBC 2006.	6-weeks
05	Future vertical extension. (Main Building)	Prior commencement of any extension work, a qualified building engineer is required to carry out Detailed Engineering Assessment (DEA) of the structure according to BNBC 2020 and submit it to RSC for review.	6-weeks

Item No.	Observation	Recommended Action Plan	Recommended Timeline
06	Future vertical extension. (Main Building)	Carry out necessary remedial works arise from the DEA.	6-months
07	Non-engineered roof shed over staircase. (Main Building)	Building engineer is required to check the adequacy of the steel roof shed for gravity and lateral forces or replace it with the engineered roofing.	6-weeks
08	Non-engineered roof shed over staircase. (Main Building)	Carry out necessary remedial works arise from the EA.	6-months
09	Water ponding on roof (Main Building)	Remove the construction debris from the roof.	6-weeks
10	Water ponding on roof (Main Building)	Develop proper drainage system on the roof with adequate slope, outlets and apply water proofing compound on the roof slab to resist water ingress into the slab.	6-month

Item No.	Observation	Recommended Action Plan	Recommended Timeline
11	Corroded and exposed rebar on roof. (Main Building)	Apply corrosion resistance paint/layer to the exposed rebars to protect from corrosion.	6-weeks
12	Lack of as-built drawings (Utility Shed)	Building engineer is required to prepare full set of as-built drawing for this structure.	6-weeks
13	Apparently non-engineered shed (Utility Shed)	As part of EA, building engineer is required to check the adequacy of the steel members & uplift capacity of connections for the lateral forces. Otherwise, replace it with an engineered structure.	6-weeks
14	Apparently non-engineered shed (Utility Shed)	Carry out necessary remedial works arise from the EA.	6-months