

MUAZUDDIN TEXTILE LTD (Extension 3)

B31 PLOT # 235/236, EAST CHANDURA, SHOFIPUR, KALIAKOR, GAZIPUR.

(24.033317, 90.271766)

21 April 2024

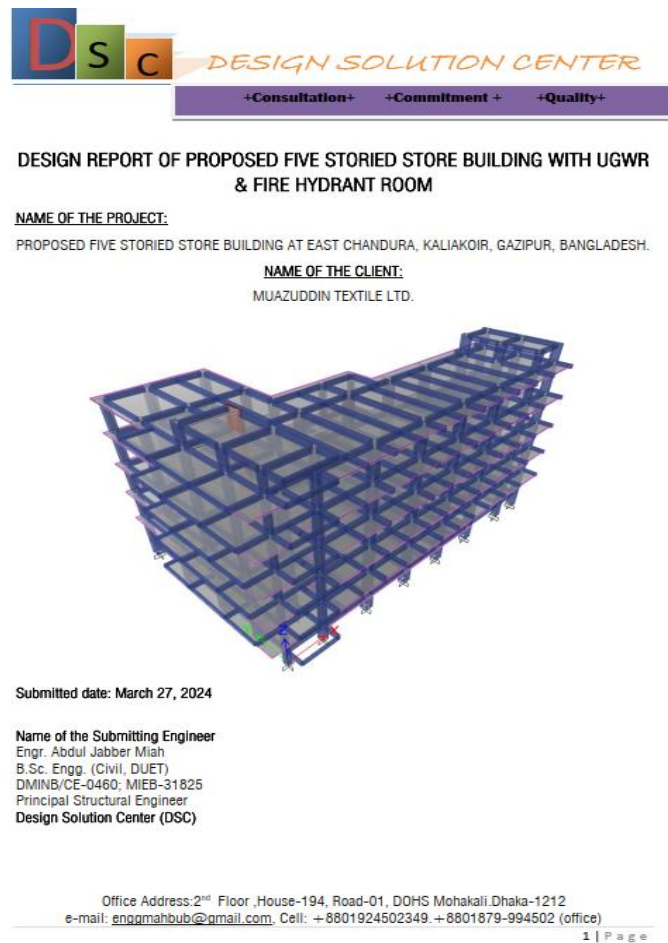


Building Information:

B+G+2: Chemical & Fabric Store Building.

Observations

Observation-1: Inconsistencies in the design report. (Chemical & Fabric Store Building)



Description: Special Moment Resisting Frame (SMRF) is considered as a structural system. No detailed calculation was provided to justify the SMRF detailing. The building engineer is required to review the seismic load design parameters used in the design report. The building engineer is required to confirm the seismic detailing and amount of rebar by ferro scanning or pictorial evidence during the construction period if required.

Observation 2: Confirm the concrete design strength (Chemical & Fabric Store Building).

5.0 MATERIAL SPECIFICATIONS:

The following strength parameter has been considered to design this structure.

- i) Compressive strength of concrete, f'_c
 - Column (4500 psi) using crushed stone chips as CA
 - Beam (3500 psi) using crushed stone chips as CA
 - Slab (3500 psi) using crushed stone chips as CA
- ii) Yield Strength of reinforcement, f_y
 - Steel (60000 psi) using deformed bar

Description: The number of concrete cylinder test data does not meet the frequency of testing requirements as per BNBC 5.12. The building engineer is required to confirm the design strength by taking the min 4 nos 100 mm diameter concrete cores from lower tier columns.

Observation-3: Falling hazard at the roof and lift core (Chemical & Fabric Store Building).



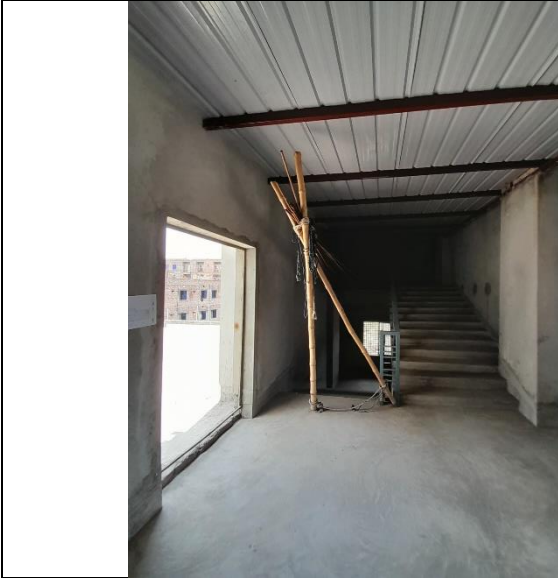
Description: Parapet and safety barrier not provided on the roof and around the lift core. Building engineer is required to provide a safety barrier to prevent the falling hazard.

Observation-4: Nonstructural elements found not anchored (Chemical & Fabric Store Building)



Description: Nonstructural elements found not anchored. The building engineer is required to anchor/brace all nonstructural elements including storage racks to resist the earthquake force.

Observation-5: Bamboo support of the hanged rebar. (Chemical & Fabric Store Building)



Description: The hung bundled rebars of the stairs are supported by bamboo which has the potential risk of falling on humans using the stairs. The building engineer is required to take the necessary steps to support the rebar appropriately.

Observation 6: Non-engineered staircase roof (Chemical & Fabric Store Building).



Description: Non-engineered connection was observed in the staircase roof structure. The building engineer is required to improve the connection of the stair roof for the uplift forces.

Action Plan

CAP Item No	Observation	Action Plan	Timeline
1	Inconsistencies in the design report. (Chemical & Fabric Store Building)	The building engineer is required to review the seismic load design parameters used in the design report.	within 6 weeks
2		The building engineer is required to confirm the seismic detailing and amount of rebar by ferro scanning or pictorial evidence during the construction period if required.	within 6 weeks
3		Implement remediation work if required.	within 6 months
4	Confirm the concrete design strength (Chemical & Fabric Store Building).	The building engineer is required to confirm the design strength by taking the min 4 nos (100 mm diameter) concrete cores from lower-tier columns.	within 6 weeks
5	Falling hazard at the roof and lift core (Chemical & Fabric Store Building).	The building engineer is required to provide a safety barrier to prevent the falling hazard.	within 6 weeks
6	Nonstructural elements found not anchored (Building 5-ETP Building)	The building engineer is required to anchor/brace all non-structural elements including storage racks to resist the earthquake force.	within 6 months
7	Bamboo support of the hanged rebar. (Chemical & Fabric Store Building)	The building engineer is required to take the necessary steps to support the rebar appropriately.	within 6 months
8	Non-engineered staircase roof (Chemical & Fabric Store Building).	Building engineer is required to check the connection adequacy and propose the improved connection details of the stair roof for the uplift forces.	within 6 weeks
9		Implement remediation work if required.	within 6 months