

DELUXE FASHIONS LTD. (Extension)

178,179 Baizid Bostami Road, Nasirabad Industrial Area, Chittagong.

Geographic Coordinates: 22.390232, 91.811246

20 September 2023



Building information:

Utility Building: Five (G+4) storied building.

Observations

Lack of design report & floor load plan



Utility Building



Storage on 2nd & 3rd floor

7. STEEL REINFORCEMENT

- a) ALL REINFORCEMENTS ARE 500W HIGH STRENGTH DEFORMED BAR MADE FROM BILLET STEEL
- b) THE FOLLOWING TESTS FOR REINFORCING BARS FE CONDUCTED AT BUET AS PER BDS 1313 : 1991 AND T TO THE ENGINEER FOR CHEECKING AND RECORD :
 - i) TENSILE STRENGTH TEST
 - ii) PERCENTAGE ELONGATION TEST
 - iii) BEND/REBEND TEST

3. CONCRETE :

- a) TYPE : ALL CONCRETE COMPRESSIVE STRENGTH CON
 - 1) f_c = MINIMUM 4000 PSI FOR COLUMN, FOOTING & BEAM
 - 2) f_c = MINIMUM 3500 PSI FOR SLAB
 - 3) f_c = MINIMUM 3500 PSI (FOR RESERVOIR)
 - 4) f_c = MINIMUM 3000 PSI (FOR OTHERS)

Material strength in the drawing

As per BNBC (part-6), every building or structure designed 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 & section 1.9.1.2 of BNBC (part-6).

At the time of inspection, design report, floor load plan & material test report was not available. Building engineer is required to prepare a set of design documents in compliance with BNBC based on current floor load and in-situ material strength.

Observation: Utility Building

Crack in stair column at roof level



Crack in stair column at roof level

The building engineer is required to prepare an investigation report with necessary pictorial evidence and provide proper remedial action.

Observation: Utility Building

Problems Observed

Utility Building:

Item 01: Lack of design report & floor load plan.

Item 02: Crack in stair column at roof level.

Priority Actions

Item No.	Observation	Recommended Action Plan	Recommended Timeline
01	Lack of design report & floor load plan (Utility Building)	Produce floor live load plan for all floor plates following BNBC requirements and based on column & foundation capacity.	6-weeks
02	Lack of design report & floor load plan (Utility Building)	Verify in-situ material strength for concrete by taking 100 mm diameter minimum 4 nos from lower tier columns.	6-weeks
03	Lack of design report & floor load plan (Utility Building)	Verify rebar strength.	6-weeks
04	Lack of design report & floor load plan (Utility Building)	The building engineer is required to prepare a set of design documents in compliance with BNBC 1.9 based on floor load plan and in-situ material strength.	6-weeks
05	Lack of design report & floor load plan (Utility Building)	Carry out suggested remedial work.	6-months
06	Lack of design report & floor load plan (Utility Building)	Continue to implement floor live load plan.	6-months

Item No.	Observation	Recommended Action Plan	Recommended Timeline
07	Crack in stair column at roof level. (Utility Building)	The building engineer is required to prepare an investigation report with necessary pictorial evidence and provide proper remedial actions for the crack.	6-weeks
08	Crack in stair column at roof level. (Utility Building)	Carry out suggested remedial works.	6-months