Mehnaz Styles & Craft Ltd. (New)

Industry Sl. No.: 56, Ward No: 06, Tongabari, Ashulia, Savar, Dhaka
(23.898356, 90.323207)
14th June 2022

RSC | RMG SUSTAINABILITY COUNCIL

Building Information

Building-01 (Main Building): eight storied (G+7) reinforced concrete (RC) building.

Building-02 (Utility Building): two storied (G+1) reinforced concrete (RC) building.

Building-03 (Health & Child Care): single storied reinforced concrete (RC) building.

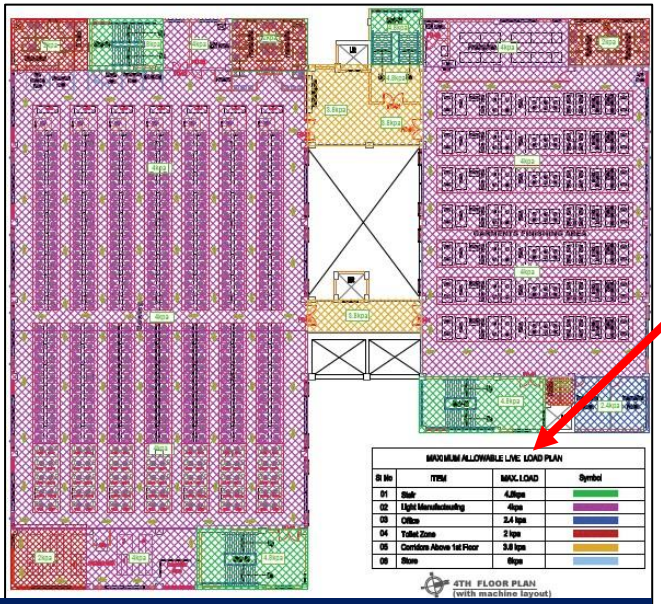
Buildind-04 (RMS, Fire Control Room & Guard Room): single storied reinforced concrete (RC) building.

Building-05 (Water Reservoir & Pump Room): The structure is a reinforced concrete (RC) underground structure used for fire pump room and water reservoir.

Observations

Mismatch between design report and floor loading plan

Observations: Building-1

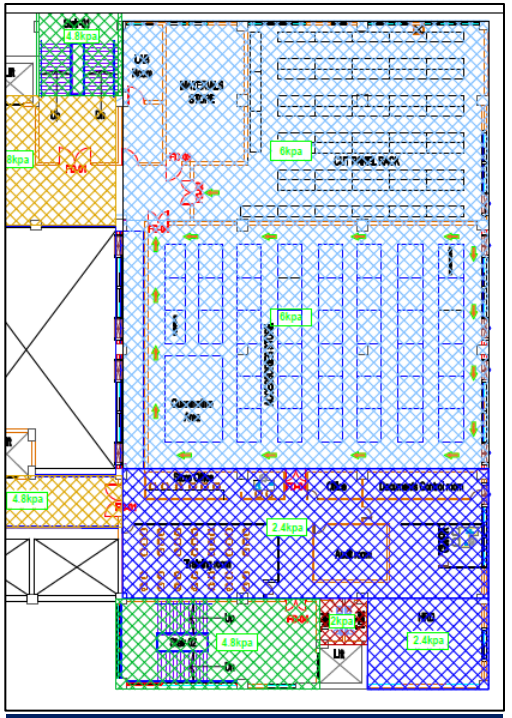


Floor load plan- 4th floor

MAXIMUM ALLOWABLE LIVE LOAD PLAN			
Sl No	ITEM	MAX. LOAD	Symbol
01	Stair	4.8kpa	
02	Light Manufacteuring	4kpa	
03	Office	2.4 kpa	
04	Toilet Zone	2 kpa	
05	Corridors Above 1st Floor	3.8 kpa	
06	Store	6kpa	

Load Limit Table in Load plan

Storage at 4th floor



6 kPa live load shown in the load plan of 1st floor of part- B

Table 2.1: Loading of Building considered for analysis (as per BNBC-2006)

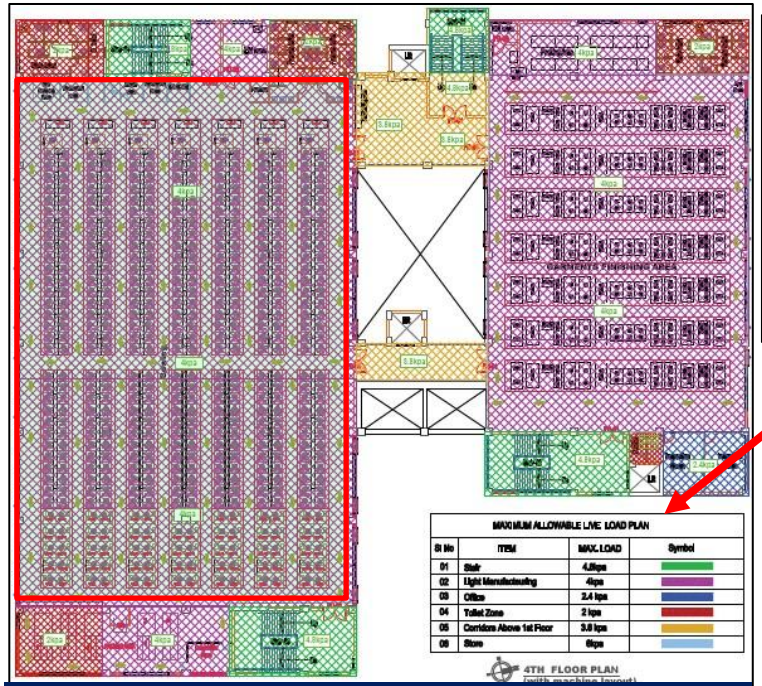
Floor	Type of Loading	Code Specified Load (Q_C) in psf for Industrial Building.
1st Floor	Live Load	125
2nd Floor	Live Load	105
3rd Floor	Live Load	105
4th Floor	Live Load	105
5th Floor	Live Load	105
6th Floor	Live Load	105
7th Floor	Live Load	63
Roof/Open to sky	Live Load	30
Stair	Live Load	105

For toilet portion 42psf live load has been considered according to BNBC 2006.

5 kPa floor live load in the design report for 2nd to 6th floor of part-B

Load For part-B: 5 kPa floor live load has been considered in the design report for 2nd to 6th floor. But in load plan, 6 kPa has been considered in all the storage area of 1st to 3rd floor and 5th floor. Again at 4th floor, 4 kPa live load has been considered in load plan for sewing section. But storage was found in 4th floor level. Factory engineer is required to update the floor loading plan and design report following BNBC loading requirements.

Observations: Building-1



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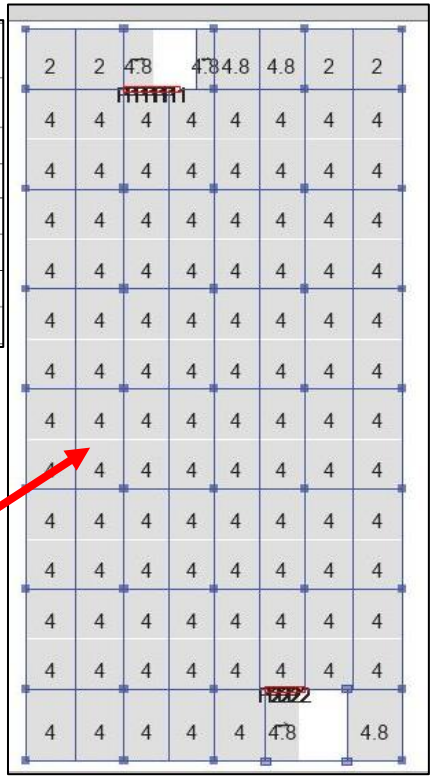
Floor load plan

4 kPa has been considered in software-based analysis model for Part- A



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6th Floor	Live Load	105
7th Floor	Live Load	105
Roof	Live Load	105
Stair	Live Load	105

For toilet & tapered slab portion 42psf live load has been considered according to BNBC 2006.

Floor load table in Design Report for part-A

For part-A: The live load of light manufacturing has been considered 4 kPa in the software analysis model and live load plan for all floor levels where in the design report, 6 kPa live load has been considered at 1st floor and 5 kPa considered for upper floors.
Factory engineer is required to update the floor loading plan, software-based analysis model and design report following BNBC loading requirements.

Observations: Building-1

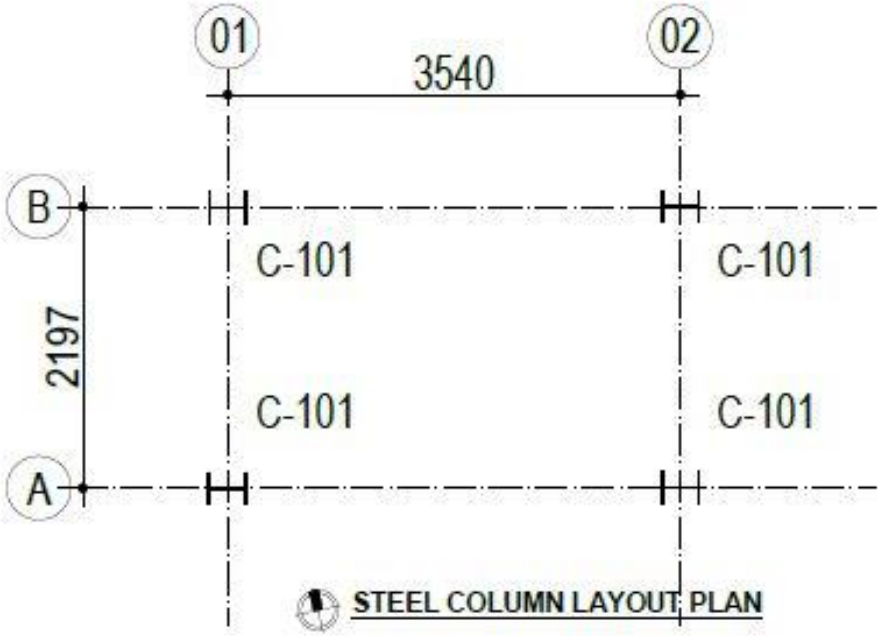
Mismatch in drawing (Steel Stair)

Observations: Building-2

The flange width of stair steel column was found 200mm. Whereas as built drawing shows 250 mm. Building engineer is required revised the as-built drawing as per on site condition.

STEEL COLUMN SCHEDULE

NAME	D (mm)	TW (mm)	BF (mm)	TF (mm)
C-101	300	6	250	10
STRINGER	C-CHANNEL (250X75X8)mm			



STEEL COLUMN LAYOUT PLAN


Flange width of steel column 200 mm

Observations: Building-2 (Steel Stair)

Problems Observed

Building-1:

Item 01: Mismatch between design report and floor loading plan.

Building-2:

Item 02: Mismatch in drawing (Steel Stair)

Priority Actions

Item No.	Observation	Recommended Action Plan	Recommended Timeline
01	Mismatch between design report and floor loading plan. (Building-1)	Building engineer to check the floor occupancies, update the floor loading plan based on BNBC requirements and capacity of floors, columns and foundations of the building.	6-weeks
02	Mismatch between design report and floor loading plan. (Building-1)	Implement the floor loading plan.	6-months
03	Mismatch in drawing (Steel Stair)	Building engineer is required revised the as-built drawing as per on site condition.	6-weeks