TM Textiles & Garments Limited (Expansion Unit)

Kashor, Post: Hobibari, Thana: Bhaluka, Mymensingh
(24.293696, 90.365797)
15th March, 29th September & 13th October 2020

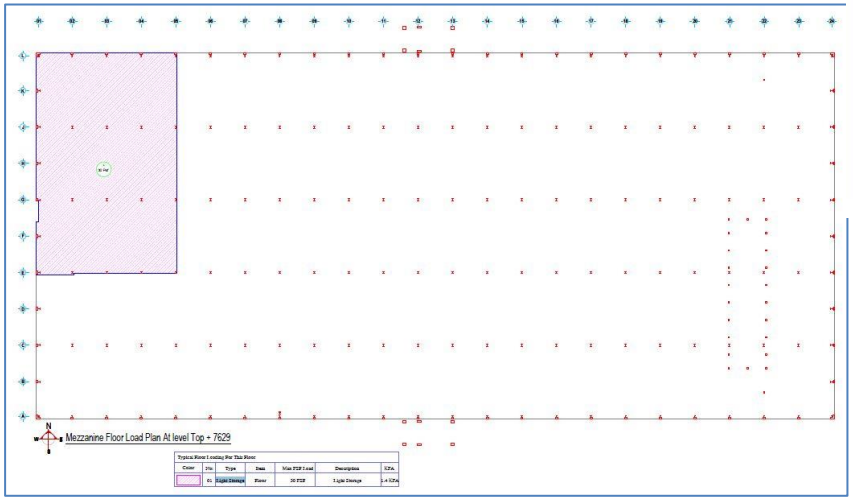
RSC RMG SUSTAINABILITY COUNCIL

Buildings Information

1. Main Building (G+1)
2. Canteen Building (single storied)
3. Fabric Building (G+1)
4. Generator Building (single storied)
5. Entry Building (G+1)
6. Washing/Ro Building (single storied)
7. RMS Building (single storied)
8. WTP/Fire Pump Shed (single storied)

Observations

Column stressed above normal design limits

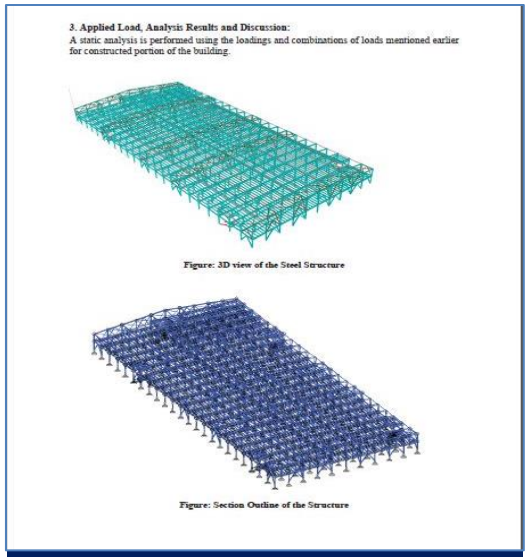


Floor load Plan of mezzanine

Typical Floor Loading For This Floor				
Color	No:	Type	Item	Max PSF Load
	01	Light Storage	Floor	30 PSF

A set of load plan has been prepared for the main building considering 30psf live load for light storage on mezzanine floor. Which is not comply with BNBC. Prepared load plan need to be revised based on floor, column and foundation capacity.

A set of design report has been prepared for the main building considering 5 KPa (1st floor) live loading. Cursory calculation indicates that few columns under mezzanine floor are stressed above normal design limits considering 5 kPa live load on typical floor. On the other hand the material specification of steel member is not mentioned in the (provided PDF copy) design report as per BNBC section 1.9.1.1. Factory is required to revise and submit the design report with analysis file to RSC for further review.



Design Report

Observations: Main Building

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Corrosion in steel member

Observations: Main Building

Corrosion in steel column

Corrosion in steel beam

Corrosion in steel member was observed in various locations. The building engineer to investigate the reason of corrosion and suggest proper remedial measure accordingly.

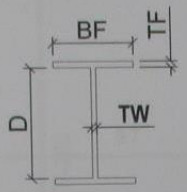
Observations: Main Building

Inconstancies in the drawings

Observations: Canteen Building

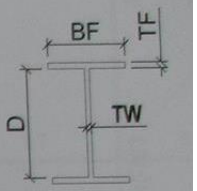
PROPOSED SCHEDULE OF COLUMN:

NAME	D (mm)	TW (mm)	BF (mm)	TF (mm)
C-101	300~650	6	200	8
C-102	250	5	200	8
C-103	200	5	200	8



AS BUILT SCHEDULE OF COLUMN:

NAME	D (mm)	TW (mm)	BF (mm)	TF (mm)
C-101	300~650	6	200	8
C-101a	300~650	6	198	8
C-101b	300~650	6	198	7.83



As-built column schedule drawings.

Edge steel column web measured 350mm which was 300mm in the drawing.

Details of this canopy was not available in the provided drawings.

The building engineer is required to update the as-built drawings.

Observations: Canteen Building

Cracks on the exterior walls

Observations: Canteen Building

Cracks were observed on the exterior face of brick walls.

The building engineer is required to investigate the reasons of cracks and suggest proper remedial actions accordingly.

Observations: Canteen Building

Lack of information in as built drawings

Observations: Fabric Building

Deck Slab from ground floor

Deck Slab-1st floor

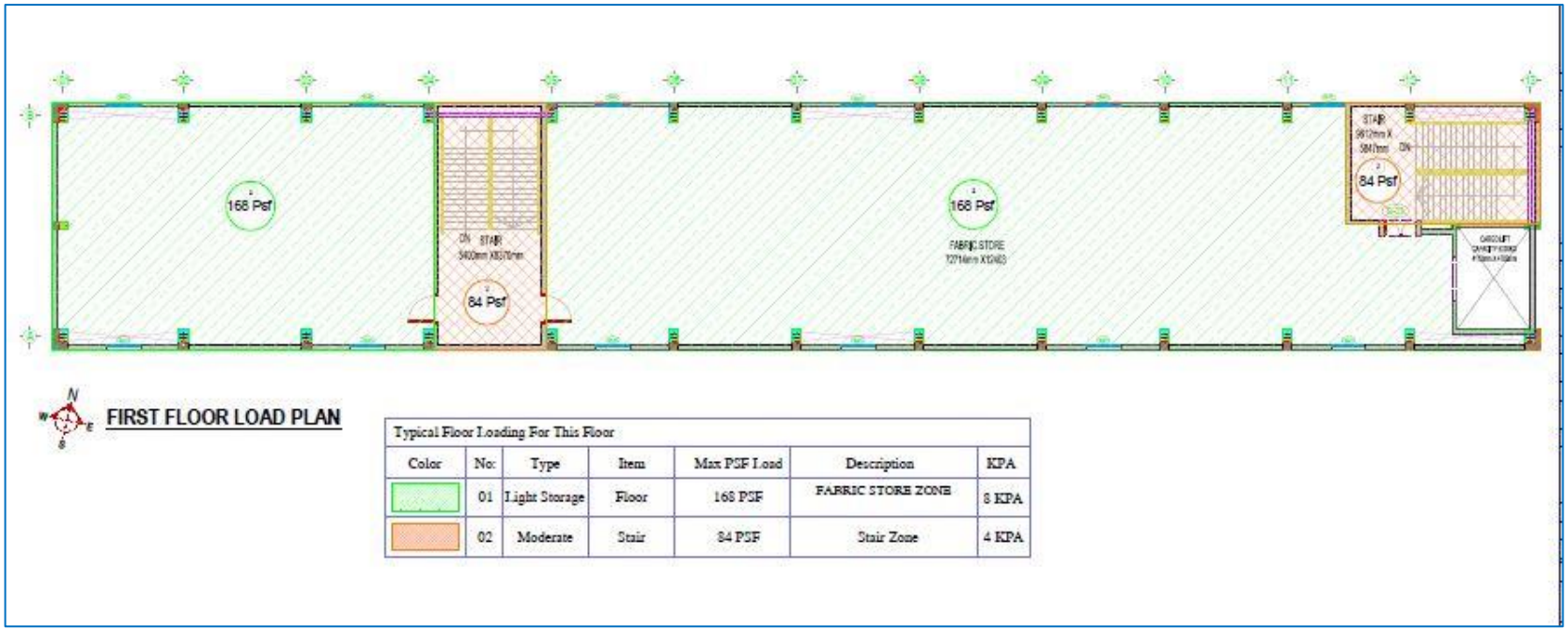
Information regarding the details of the deck slab was not available in the as-built drawings. The factory engineer is required to survey the structures and prepare as-built drawings complying with section 1.9.1.2 of BNBC.

Observations: Fabric Building

Design report required to be reviewed by RSC

Observations: Fabric Building

The 1st of the building is designed for 8 kPa live load. But floor beam deflection check has not been provided in the design report.



Typical Floor Loading For This Floor						
Color	No:	Type	Item	Max PSF Load	Description	KPA
	01	Light Storage	Floor	168 PSF	FABRIC STORE ZONE	8 KPA
	02	Moderate	Stair	84 PSF	Stair Zone	4 KPA

The building engineer is required to include the beam deflection check in the design report and submit to RSC for further review.

Observations: Fabric Building

Significant connection gap at several location.

Observation: Fabric Building

Gap observed in Beam- Column connection

Connection Gap in Rafter

Gap observed in Rafter-Column connection

Significant gaps observed at column-rafter & beam joint at several location. Factory engineer is required to carry out suitable remedial works.

Observation: Fabric Building

Corrosion observed on steel sections

Corrosion was observed on steel column in toilet zone. Factory is required to identify the corroded locations and take proper remedial measures.

Observation: Fabric Building

Problems Observed

Main Building

Item 1: Column stressed above normal design limits.

Item 2: Corrosion in steel member.

Canteen Building

Item 3: Inconsistencies in the drawing.

Item 4: Cracks on the exterior walls.

Fabric Building

Item 5: Lack of information in as built drawings.

Item 6: Design report required to be reviewed by RSC.

Item 7: Significant connection gap at several location.

Item 8: Corrosion observed on steel sections.

Priority Actions

Item No.	Observation	Recommended Action Plan	Recommended Timeline
01	Column stressed above normal design limits (Main Building).	Factory Engineer to review design, loads, columns and footings stresses.	6-weeks
02	Column stressed above normal design limits (Main Building).	Produce and actively manage a loading plan for all floor plates within the factory, considering floor, column and foundation capacity.	6-weeks
03	Column stressed above normal design limits (Main Building).	Complete implementation of any remedial works deemed necessary by the design report.	6-months
04	Column stressed above normal design limits (Main Building).	Continue to implement loading plan.	6-months
05	Corrosion in steel member (Main Building)	The building engineer to investigate the reason of corrosion and suggest proper remedial measure accordingly.	6-weeks

Item No.	Observation	Recommended Action Plan	Recommended Timeline
06	Column stressed above normal design limits (Main Building).	Take necessary measures to prevent further corrosion and repair the corroded steel members as per engineer's suggestion.	6-months
07	Inconsistencies in the drawing. (Canteen Building)	The building engineer to survey the structure and update the as-built drawings accordingly.	6-weeks
08	Cracks on the exterior walls. (Canteen Building)	The building engineer to investigate the reason of cracks and suggest proper remedial measure accordingly.	6-weeks
09	Cracks on the exterior walls. (Canteen Building)	Carry out repair works as per engineer's suggestion.	6-months
10	Lack of information in as built drawings. (Fabric Building)	The building engineer to survey the structure and update the as-built drawings accordingly.	6-weeks

Item No.	Observation	Recommended Action Plan	Recommended Timeline
11	Design report required to be reviewed by RSC (Fabric Building)	Produce and actively manage a loading plan for all floor plates within the factory, considering floor, column and foundation capacity.	6-weeks
12	Design report required to be reviewed by RSC (Fabric Building)	Revise the prepared design report and Submit to RSC.	6-weeks
13	Design report required to be reviewed by RSC (Fabric Building)	Complete remedial works if arising from design report after reviewed by RSC.	6-months
14	Design report required to be reviewed by RSC (Fabric Building)	Implement floor loading plan after getting acceptance.	6-months
15	Significant connection gap at several location (Fabric Building).	Identify the locations and carryout suitable repair works where necessary.	6-weeks

Item No.	Observation	Recommended Action Plan	Recommended Timeline
16	Corrosion observed on steel sections (Fabric Building)	The building engineer to investigate the reason & extent of corrosion and suggest proper remedial measure accordingly.	6-weeks
17	Corrosion observed on steel sections (Fabric Building)	Take necessary measures to prevent further corrosion and repair the corroded steel members as per engineer's suggestion.	6-months