Designer Fashion Ltd. (Warehouse)

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(23.9808N, 90.2257E)
8 August 2022

RSC RMG SUSTAINABILITY COUNCIL

Buildings Information

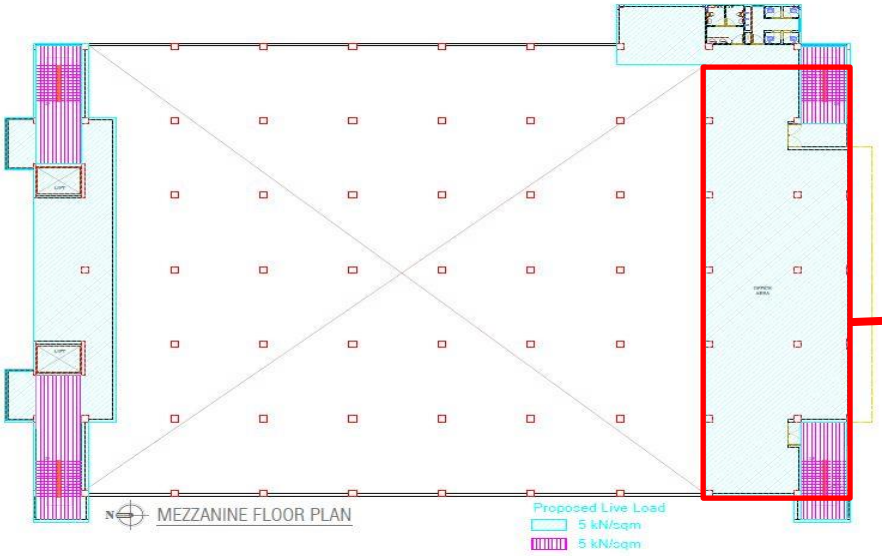
1. Warehouse (Building No-2) (G+1)

Observations

RSC RMG SUSTAINABILITY COUNCIL

Prepared load plan to be revised

Observations: Warehouse (Building No-2)



Live load plan- Mezzanine floor (above ground)

Office area mentioned in the load plan with live load limit of 5 kPa.

Storage on Mezzanine above ground floor.

INDUSTRIAL, STORAGE & HAZARDOUS (Occupancy - G, H & J)	Workshop, factory, warehouse	1 Light workroom without storage	3.0	2.7
		2 Machinery hall & circulation area	4.0	4.5
		3 Factory, workshop etc.	5.0	4.5
		4 Manufacturing : light	6.0	4.5
		heavy	12.0	9.0 (5)
		ice	15.0	9.0 (5)
		5 Printing plant :		
		Press room	7.0	11.0 (5)
		Composing and linotype room	5.0	9.0 (5)
		Paper storage room	12.0	9.0 (5)
		6 Motor room, fan room etc. including the weight of machinery	7.5	4.5
		7 Cold storage, grain storage	15.0	9.0 (5)
		8 Storage warehouses : light	6.0	4.5 (5)
		heavy	12.0	9.0
		9 Foundries	20.0	12.0

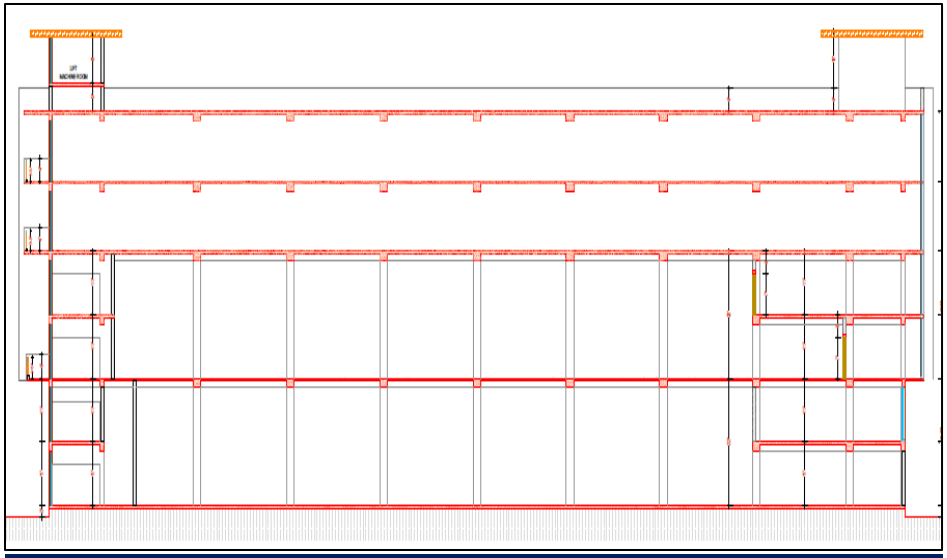
Live load table (BNBC part-6)

Live load on mezzanine floor above ground is considered as 5 kPa in prepared load plan and occupancy type shown as office but storage was observed on that area. As per BNBC- Part 6, live load for light storage areas is required to be considered minimum 6 kPa. However, the building engineer is required to revise the live load plan as per BNBC requirement and check the design accordingly.

Observations: Warehouse (Building No-2)

Foundation stress exceeds normal design limit for proposed 4 storied building

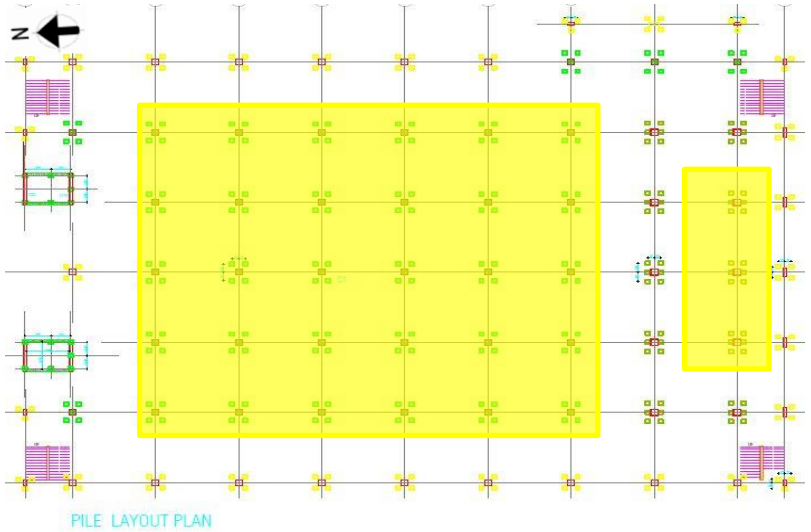
Observation: Warehouse (Building No-2)



Building is permitted for 4 storied (as per approval drawing from local authority)

Building is currently 2 storied

For proposed 4 storied building, the cursory calculation indicates that factor of safety (FoS) of internal pile foundations is below the allowable limit. The building engineer is required to carryout a Detail Engineering Assessment (DEA) and submit to the RSC prior for review prior to conduct any further extension above existing 2 storied building.

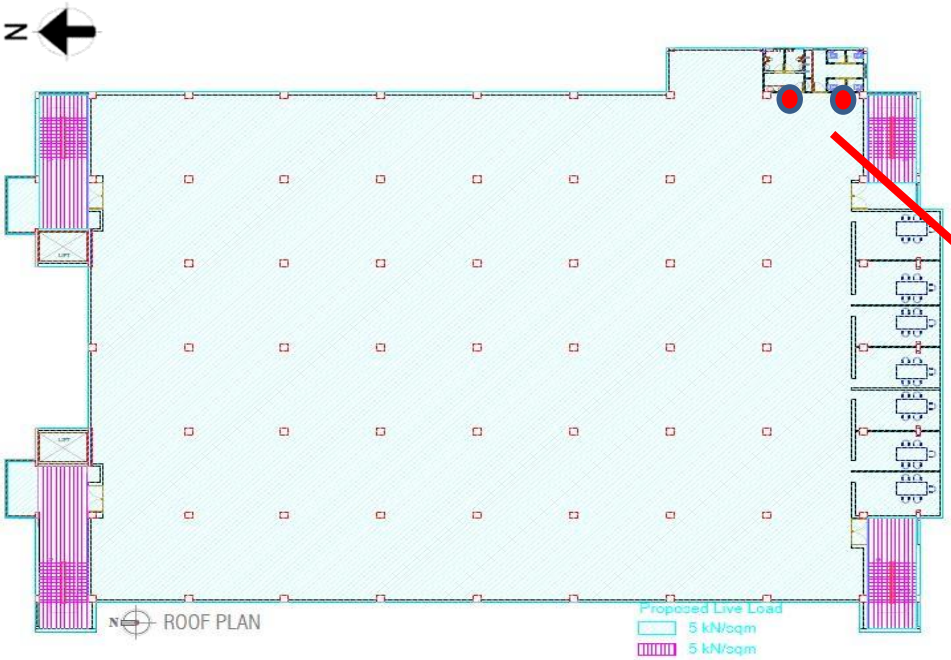


Stressed foundation in layout (yellow mark)

Observations: Warehouse (Building No-2)

Discrepancy in as-built drawing

Observation: Warehouse (Building No-2)



Present roof layout

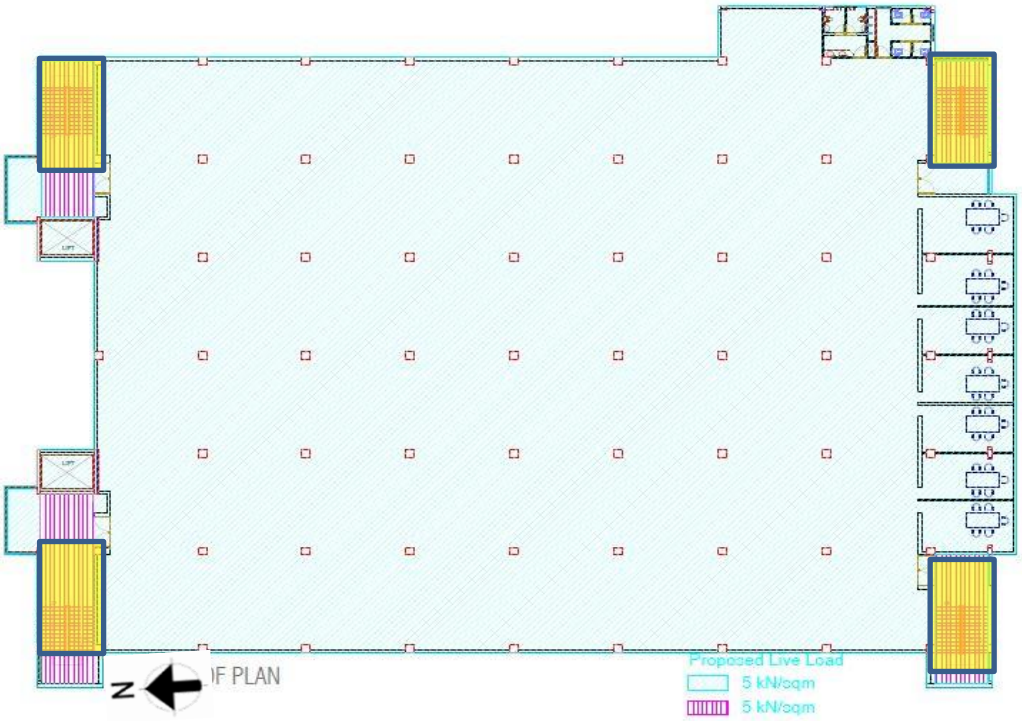
Two plastic water tanks (capacity- 2000 litre each) found on roof slab which were not shown in roof layout. The building engineer is required to update the current roof layout plan.

Plastic water tanks (2000 liter each)

Observations: Warehouse (Building No-2)

Apparently inadequate connection

Observation: Warehouse (Building No-2)



Layout of steel roofing on staircases

Roof truss not anchored with the rebar of RC column

Connections of truss to RC column at roof of staircases were appeared to be inadequate for uplift forces. The building engineer is required to check the connections for uplift forces and suggest proper remedial actions accordingly.

Observations: Warehouse (Building No-2)

Water ponding on the roof slab

Observation: Warehouse (Building No-2)

Water ponding on the roof slab

Water ponding on the roof was observed due to poor drainage system. The factory is required to improve the roof drainage system with adequate slope.

Observations: Warehouse (Building No-2)

Exposed reinforcement left at roof level

Observation: Warehouse (Building No-2)

Exposed reinforcement left at Staircase

Exposed reinforcement left in column at roof

Exposed reinforcement is left at roof level & staircases which was prone to corrosion. The factory is required to provide rust proof paint on exposed reinforcement to protect from corrosion.

Observation: Warehouse (Building No-2)

Problems Observed

Warehouse (Building No-2)

- Item 01: Prepared load plan to be revised
- Item 02: Foundation stress exceeds normal design limit for proposed 4 storied building
- Item 03: Discrepancy in as-built drawing
- Item 04: Apparently inadequate connection
- Item 05: Water ponding on roof slab
- Item 06: Exposed reinforcement left at roof level

Priority Actions

Item No.	Observation	Recommended Action Plan	Recommended Timeline
01	Prepared load plan to be revised (Warehouse: Building No-2)	The building engineer is required to revise the load plan as per BNBC requirement and check the design accordingly.	6-weeks
02	Prepared load plan to be revised (Warehouse: Building No-2)	Implement remediation work from design check if required.	6-months
03	Foundation stress exceeds normal design limit for proposed 4 storied building (Warehouse: Building No-2)	The building engineer is required to carryout a Detail Engineering Assessment (DEA) and submit to the RSC prior for review prior to conduct any further extension above existing 2 storied building.	6-weeks
04	Foundation stress exceeds normal design limit for proposed 4 storied building (Warehouse: Building No-2)	Implement remediation work prior any extension if required.	6-months
05	Discrepancy in as-built drawings (Warehouse: Building No-2)	The building engineer is required to survey the structure and update the as-built drawings to the as-constructed status.	6-weeks

Item No.	Observation	Recommended Action Plan	Recommended Timeline
06	Apparently inadequate connection (Warehouse: Building No-2)	The building engineer is required to check the connection adequacy for uplift forces and suggest necessary remedial actions.	6-weeks
07	Apparently inadequate connection (Warehouse: Building No-2)	Implement suggested remediation work.	6-months
08	Water ponding on the roof slab (Warehouse: Building No-2)	The factory is required to improve the roof drainage system with adequate slope.	6-months
09	Exposed reinforcement left at roof level (Warehouse: Building No-2)	Factory is required to provide rust proof paint on exposed reinforcement to protect from corrosion.	6-months