Liz Fashion Industry Limited (10228)

HMN Fashion Ltd (11250)

Holding 1, Block C, Shaheed Mosharaf Hossain Road, Purba Chandora, Sofipur, Kaliakoir, Gazipur, Bangladesh

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Identified Priority 1 Concerns

- Liz-1 building cantilever slabs of Liz-1
- The rear elevation of Liz-2 building –
the structural arrangement does not match the as-built construction documentation.

1st Priority 1 Concern

There are cantilevered slabs that do not appear on the Liz-1 structural drawings, also the 3 storey side extension is not shown on the structural drawings. The steel column section sizes for Shed-1 and Shed-2 are not consistent with the produced drawings.

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Identified Priority 2 Concerns

- Uncontrolled loading on the 2nd floor of Liz-2 building.
- There is no fire-proofing material applied to the steel structures, (if required) and no movement joint properly established.

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1st Priority 2 Concern

Uncontrolled heavy storage loading was found on the 2nd floor of Liz-2 Building.

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2nd Priority 2 Concern

It appears that protective paint is applied to the steelwork elements, however, it is unclear if fire protective paint is also applied or required.

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Identified Priority 3 Concerns

- No waterproofing material applied on the roof slab.

1st Priority 3 Concern

There is no movement joint on the connecting area between the Printing building and shed-1.

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2nd Priority 3 Concern

There are cracks on the roof slabs of Liz-1 building. There was no noted distresses due to water ingress but it is unclear if waterproofing material is present.

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Overall Stability System

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Concerns on the stability system for lateral loading and seismic loading. Façade brickwork walls lack moment capacity connection between columns and beams.

We require that these concerns be investigated as part of a Detailed Engineering Assessment

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Water Ingress at Roof Level

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No distresses due to water ingress was found on any roof level. On Liz-2 building, tiles are applied on the roof surface.

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Priority Actions

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Problems Observed Summary

ITEM 1:	(Priority 1)	Construction documentation does not match the actual as built building conditions
ITEM 2:	(Priority 2)	Uncontrolled heavy storage loading
ITEM 3:	(Priority 2)	No fireproofing material for steel structures
ITEM 4:	(Priority 2)	Overall stability system / moment frame capacity
ITEM 5:	(Priority 2)	Adequacy of columns to support loading
ITEM 6:	(Priority 2)	No movement joint properly established
ITEM 7:	(Priority 3)	No waterproofing material noted at any roof level

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Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	Construction documentation does not match the actual as built building conditions.	Remove all storage loading from the unrecorded areas. Factory Engineer to review design, loads, columns stresses to confirm suitability for the actual applied loads.	Immediate – Now
2	Construction documentation does not match the actual as built building conditions.	Verify in-situ concrete stresses either by cores or existing cylinder strength data for affected zone. Detail Engineering Assessment to be completed. Produce and actively manage a loading plan for all floor plates within the storage building giving consideration to floor capacity and column capacity.	6-weeks
3	Construction documentation does not match the actual as built building conditions.	Develop and continue to implement load plan.	6-months
4	Uncontrolled heavy storage loading.	Reduce stacking height to ensure total load does not exceed 2 kPa. Adopt some sort of signage/staff guidance to ensure that the maximum weight of storage is not exceeded. (A Loading Plan).	6-weeks
5	Uncontrolled heavy storage loading.	Maintain standards of quality control to ensure that storage procedures are correctly followed so that overloading does not happen in the future. Develop and maintain a loading plan.	6-months
6	No fireproofing material for steel structures.	Fireproofing material for structural steel elements is recommended based on Bangladeshi regulations.	6-weeks
7	No fireproofing material for steel structures.	Maintain standard of quality control.	6-months

Item No.	Observation	Recommended Action Plan	Recommended Timeline
8	Overall stability system / moment frame capacity.	A Detailed Engineering Assessment of all of the buildings is to be carried out and in particular, stability and foundation aspects should be investigated in detail.	6-weeks
9	Adequacy of columns to support loading.	Factory Engineer to review design, loads and columns stresses Verify in-situ concrete stresses either by cores or existing cylinder strength data for [the identified columns / cores from 4 columns].	6-weeks
10	Adequacy of columns to support loading.	Produce and actively manage a loading plan for all floor plates within the factory giving consideration to floor capacity and column capacity.	6-months
11	No movement joint properly established.	The Factory Building's Structural Engineer should carry out a Detailed Engineering Assessment to prove the capacity of the building in its existing state, a further building approval should be gained for the building as it exists, as altered since the original approval. Alternatively, the extension building should be separated by a non-structural joint and allowed to act as a fully structurally independent structure.	6-weeks
12	No movement joint properly established.	Do not construct any further buildings connected to the existing factory, without thorough structural design and full building approval.	6-months
13	No waterproofing material noted at any roof level.	For both durability and serviceability, waterproofing on the roof slab is recommended. Moreover the roof slab drainage system should be investigated.	6-months