

## **Summary of Preliminary Assessment on Structural, Fire and Electrical Safety**

---

Name of the Factory	: Thats' It Fashions Ltd.
Address of the Factory	: 241, Tejgaon I/A Dhaka-1208
Present Status of the Factory	: Under operation.
Structural Assessment Conducted by	: BUET
Date of Structural Inspection	:
Fire Assessment Conducted by	: BUET
Date of Fire Inspection	: 18 January, 2014
Electrical Assessment Conducted by	: BUET
Date of Electrical Inspection	: 18 January, 2014
BGMEA Membership No.	: 805

### **BASIC INFORMATION:**

The following information was noted:

- i. Building Usage Type : Garment Factory.
- ii. Structural System :
- iii. Floor System :
- iv. Floor Area :
- v. No. of Stories :
- vi. Construction Year :
- vii. Foundation Type :
- viii. Design Drawings :
- ix. Soil Investigation Report :
- x. Construction Materials :
- xi. Generator :

### **RECOMMENDATIONS FOR CORRECTIVE ACTION:**

The recommendations of corrective action for both Structural and Fire & Electrical Safety comprises in Short Term, Mid Term and Long Term basis.

The recommendations for **Structural Safety** corrective action are:

- |                        |   |
|------------------------|---|
| Short Term (Immediate) | : |
| Mid Term (6-weeks)     | : |
| Long Term (6-months)   | : |

## Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

The recommendations for **Fire & Electrical Safety** corrective action are:

**(A): Recommendations for Fire Safety Corrective Actions:**

<p>Immediate</p> <p><i>(the factory should not continue to be occupied until these non-conformities have been rectified):</i></p>	<ul style="list-style-type: none"> <li>• Keep corridors and passageways on escape routes free of any obstructions to ensure unobstructed path of travel along the aisles, corridors, and passageways to the exits</li> <li>• Relocate work benches, temporary storage in such a way that corridors, passageways and aisles are at least 1.0m wide on all escape routes</li> <li>• Seal the shafts/duct in the floors when it is not needed.</li> <li>• Seal the shaft/duct with non-combustible materials at each floor.</li> <li>• Remove obstructions from stairways</li> <li>• Rearrange storage items to ensure proper clearance from ceiling.</li> <li>• Post emergency procedure notices in lift lobbies.</li> <li>• Remove obstruction from lift lobby</li> <li>• Ensure illumination and cross ventilation in the transformer room</li> <li>• Provide quality silica gel</li> <li>• Remove lint/dirt from transformer room</li> <li>• Ensure ventilation to substation and substation equipment</li> <li>• Provide instructions for first aid and artificial respiration from exposure to electrical shock.</li> <li>• Provide sufficient rubber mat in front of the panel</li> </ul>
<p>Short Term</p> <p><i>(Actions that must be incorporated into a Fire Safety Management Plan immediately (1 ~ 2 weeks) and should be a regular activity</i></p>	<p>N/A</p>
<p>Mid Term</p> <p><i>(The remedial works indicated must be carried out within a period of 6 weeks)</i></p>	<ul style="list-style-type: none"> <li>• Provide design drawings to demonstrate how designated storage areas, assembly areas, offices and work areas should be separated with fire-rated walls and doors according to the Guideline occupancy separation will be achieved.</li> <li>• Retrofitting of internal layout needed with appropriate</li> </ul>

## Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

	<p>drawings following guideline</p> <ul style="list-style-type: none"> <li>• Provide drawings to arrange adequate number of doorways at each floor as per the Guidelines and produce the plan for construction of these doorways.</li> <li>• Provide floor plans with equipment, worker and work space arrangements to ensure appropriate occupancy load as per the Guidelines</li> <li>• Produce design drawings to demonstrate how stairways are to be made of adequate dimensions and appropriate specifications and to be converted into smoke-proof enclosures equipped with Fire-rated side swinging doors opening in the direction of travel at each floor.</li> <li>• Provide easily identifiable escape routes, clear and free of obstruction.</li> <li>• Provide clearly visible illuminated exit sign to indicate exit from storage area.</li> <li>• Provide cover on naked light.</li> <li>• Provide drawings and plans for installation of Fire Lift as per the specifications provided in the Guidelines.</li> <li>• Provide English and Bangla Exit instructions where necessary.</li> <li>• Post directional signs at appropriate locations.</li> <li>• Provide new Emergency Lighting system that meets the specified emergency lighting requirements of the Guidelines.</li> </ul> <p>Provide fire extinguishers that meet the requirements of the guideline.</p> <ul style="list-style-type: none"> <li>• Provide adequate number of additional fire-fighting equipment to meet the Factory Rules</li> <li>• Produce design drawings to demonstrate the incorporation of fire rated enclosure from floor to ceiling and an approved fire rated self-closing swing door for the boiler room.</li> <li>• Provide firefighting equipment as required by the Guidelines.</li> <li>• Produce design drawings to demonstrate the incorporation of fire rated enclosure from floor to ceiling and an approved fire rated door for the Transformer room of proper size</li> </ul>
<p>Long Term <i>(The remedial works indicated must be carried out within a period of 6 months)</i></p>	<ul style="list-style-type: none"> <li>• Mixed use buildings and Buildings housing RMGs, use some floors that fall under “Mixed Occupancy” (e.g. Storage, Office, Work areas, etc.). The designated storage areas, assembly areas, offices and work areas should be separated with fire rated walls and doors according to the Guidelines.</li> </ul>

## Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

---

	<ul style="list-style-type: none"><li>• Different occupancy in different floors should be separated with fire-rated construction according to the Guidelines.</li><li>• Provide fire-rated separation to prevent smoke and fire propagation through staircases and grills on the interior walls</li><li>• Doors on all escape routes to open in the direction of travel</li> <li>• Ensure adequate number of doorways in each floor according to the occupant load as per the Guidelines.</li> <li>• Internal retrofitting needed to create safe passage, corridors and exits as per the guidelines</li><li>• Ensure appropriate workspace for the occupant load of each floor as per the Guidelines</li> <li>• Change layout of workstations to ensure allowable occupancy load as per the guidelines</li> <li>• Ensure prevention of fire and smoke propagation through vertical shafts by providing fire rated enclosures around the openings along with seals and fire dampers in shafts and ducts at floor separations.</li> <li>• Provide service duct for electrical cables.</li><li>• Convert all interior stairways into smoke proof enclosures equipped with Fire-rated side swinging doors opening in the direction of travel at each floor.</li> <li>• Close wall openings adjacent to the exterior staircases to prevent fire and smoke propagation</li> <li>• The ground floor exits should be enclosed so as to ensure safe pathway for escape from the premises.</li> <li>• Provide continuous smoke-proof fire protected pathway along all the stairways from roof to the final exit.</li> <li>• Provide stairways of adequate dimensions and of appropriate specifications according to the Guidelines as required for the occupancy load.</li> <li>• Remove all collapsible security gates and roller shutters from all exit stairway access door</li><li>• Provide fire doors as approved by the Guidelines</li> <li>• Provide fire-rated solid walls from floor to</li></ul>
--	---

## Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

	<p>ceiling to ensure fire separation of the storage area from others or maintaining proper storage size and distance between stored items as per the Guideline</p> <ul style="list-style-type: none"> <li>• Provide smoke and heat vents as required (e.g. Storage, etc.)</li> <li>• Provide enclosed Lift lobby with Fire door as part of the stair enclosure as specified in the Guidelines.</li> <li>• Remove collapsible gate on lift door at all levels</li> <li>• Provide Fire Lift in building matching the specifications provided in the Guidelines.</li> <li>• Install Command Station at appropriate location with all facilities required to meet the requirements as per the Guidelines.</li> <li>• Provide standard Standpipe&amp; Hose system that complies with the Guidelines requirements for supply of water, minimum pressure in the standpipe and size (diameter) of the standpipe.</li> <li>• Ensure that Siamese connections are available as specified by the Guidelines.</li> <li>• Provide Fire pump with proper specifications to meet the Guidelines requirements</li> <li>• Provide fire rated enclosure from floor to ceiling and an approved fire rated self-closing swing door for the boiler room.</li> <li>• Install appropriate detectors.</li> <li>• Provide fire rated enclosure from floor to ceiling and an approved fire rated door for the Transformer room of proper size.</li> </ul>
--	---

### **(B): Recommendations for Electrical Safety Corrective Actions:**

<p>Immediate</p> <p><i>(the factory should not continue to be occupied until these non-conformities have been rectified):</i></p>	N/A
<p>Short Term</p> <p><i>(Actions that must be incorporated into a Fire Safety Management Plan immediately (a week) and should be a</i></p>	N/A

## Summary of Preliminary Assessment on Structural, Fire and Electrical Safety

---

<i>regular activity</i>	
Mid Term <i>(The remedial works indicated must be carried out within a period of 6 weeks)</i>	<ul style="list-style-type: none"><li>• Provide clear identification mark on MDB/DB/SDB and provide SLD</li><li>• Increase light height over isles</li><li>• Provide design drawings for the automatic fire detection and alarm system in accordance with the Guideline requirements and hazard situation, (with appropriate specifications and drawings) showing how they will be implemented along with implementation plan.</li></ul>
Long Term <i>(The remedial works indicated must be carried out within a period of 6 months)</i>	<ul style="list-style-type: none"><li>• Provide appropriate lightning protection system.</li><li>• Provide air terminals at the required location</li><li>• Install the automatic fire detection and alarm systems in accordance with the Guideline requirements and hazard situation (based on appropriate specifications and drawings).</li></ul>