

Denim Expert Ltd.

Plot #96-100, Sector #3, Kepz, North Patenga, Chittagong.
(22.27350E, 91.79150N)

20 May 2014



Observations

Observations

Localised Areas of High Loading

Observations

Localised areas of 1st floor were heavily loaded with storage loads. No load management system in place.



1st Floor Plan



Uncontrolled stacking of materials.

Observations

Non-Engineered Lightweight Roof Structures

Observations

Apparently Non engineered light weight roof structures



Off-cut material store

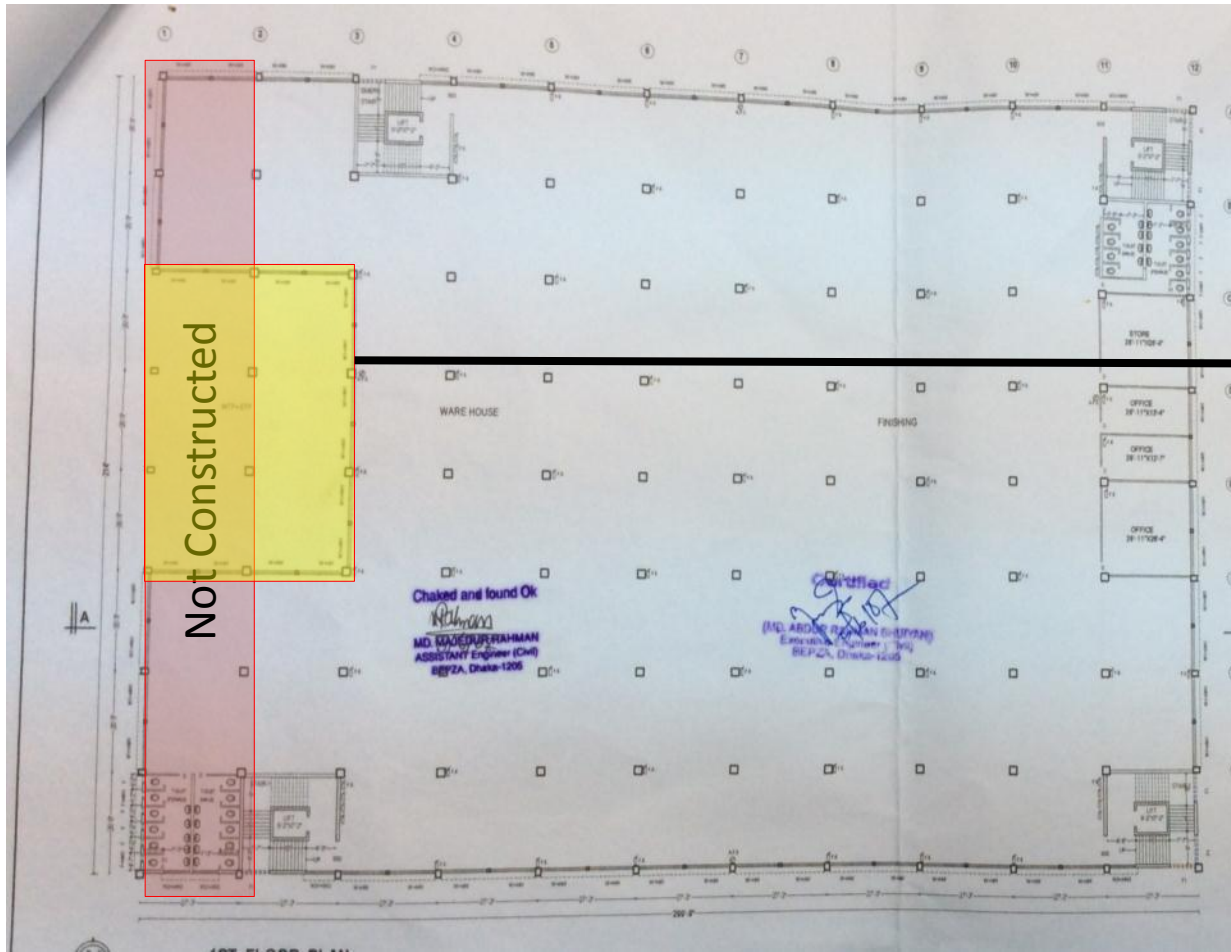


Compressor Shed

Observations

Inconsistencies Noted Between Drawings and as Built Construction

Observations



Extra bay on permit drawing does not match as built construction or structural drawings

EPT located in separated building to main factory building

Structural Drawings:
Internal and external columns 840mm x 840mm on structural drawings. Measured as built columns (including finishes) typically <790mm. (observed finishes 20m)

Inconsistencies noted on Structural and Permit drawing

Observations

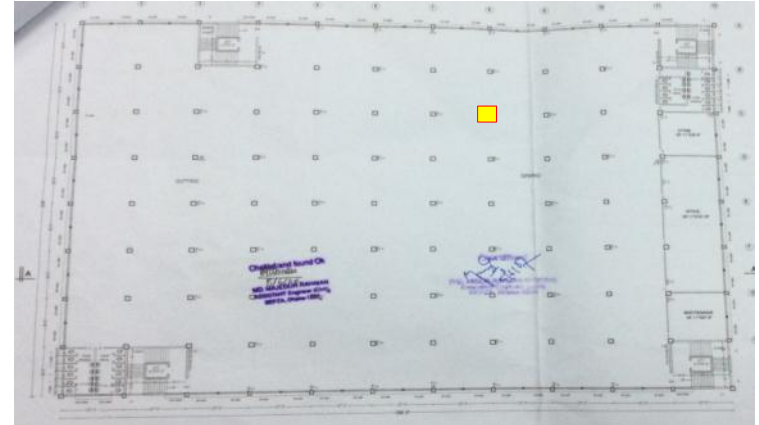
Capacity of columns to support the 6 storey building indicated on the drawings (Currently 2 storey)

Observations



Testing of columns confirmed stone aggregate.

Cursory calculations indicate that working stress would exceed normal acceptable levels in columns if the building was extended to the permitted 6 storeys.



Typical as Built column size 790x790 (incl finishes) do not match structural drawings 840mm x 840mm.



Priority Actions

Problems Observed

- ITEM 1:** Localised Areas of High Loading.
- ITEM 2:** Non Engineered Light weight roof structures
- ITEM 3:** Inconsistencies Noted Between Drawings and as Built Construction
- ITEM 4:** Capacity of columns to support the 6 storey building indicated on the drawings (Currently 2 storey)

Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	Localised Areas of High Loading	Produce and actively manage a loading plan for all floor plates within the factory giving consideration to floor capacity and column capacity. This should include a safe level to which any water tanks can be filled.	6-months
2	Localised Areas of High Loading	Continue to implement load management plan.	6-months
3	Non-engineered lightweight roof structures.	Building engineer to check the capacity of non-engineered lightweight roofs under horizontal and vertical loading and make any necessary alterations.	6-months
4	Inconsistencies noted between drawings and as built construction with drawings.	Building engineer to prepare a set of “as built” drawings for all structures linked to the factory’s activities. Permit documentation and drawings also to be updated.	6-months
5	Capacity of columns to support the 6 story building indicated on the drawings	Capacity calculations were completed on the columns for the vertical expansion of the building and showed that the column stresses are in excess of the calculated capacity should the building be extended above 5th floor.	6-months
6	Capacity of columns to support the 6 story building indicated on the drawings	Detailed engineering calculations and confirmatory testing of the concrete strength is to be completed to verify future expansion above 5th floor	6-months