

Pimkie Apparels Ltd. (9205)

Plot #328, Bloc #F, Tongi Industrial Area, Tongi

(+23.882757N, 90.396797E)

27.May.2014



Identified Priority 1 Concerns

Garment Building – Steel columns



1st Priority 1 Concern

At the Garment Building, according to our verification of the steel columns , the loading of the 1st and 2nd floor are too high for the column sizes of the building. A design check of all of the steel columns must be included in the Detailed Engineering Assessment.

Identified Priority 2 Concerns

Garment Building – No Fireproofing of the structural steel.

Garment Building - Welds for braces

Garment Building - Heavy full height partition on typical size beam (1st floor)

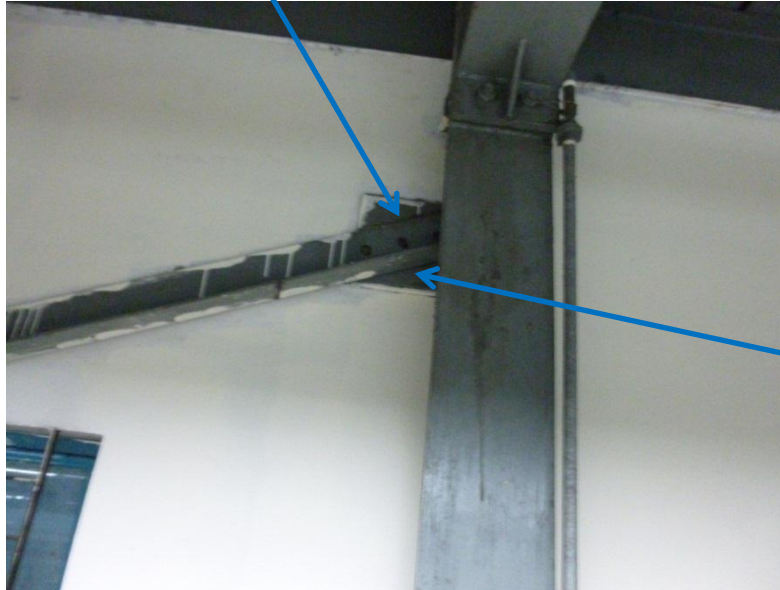
1st Priority 2 Concern



At the garments building, no fireproofing material was noted on structural steel elements as suggested by BNBC 2006.

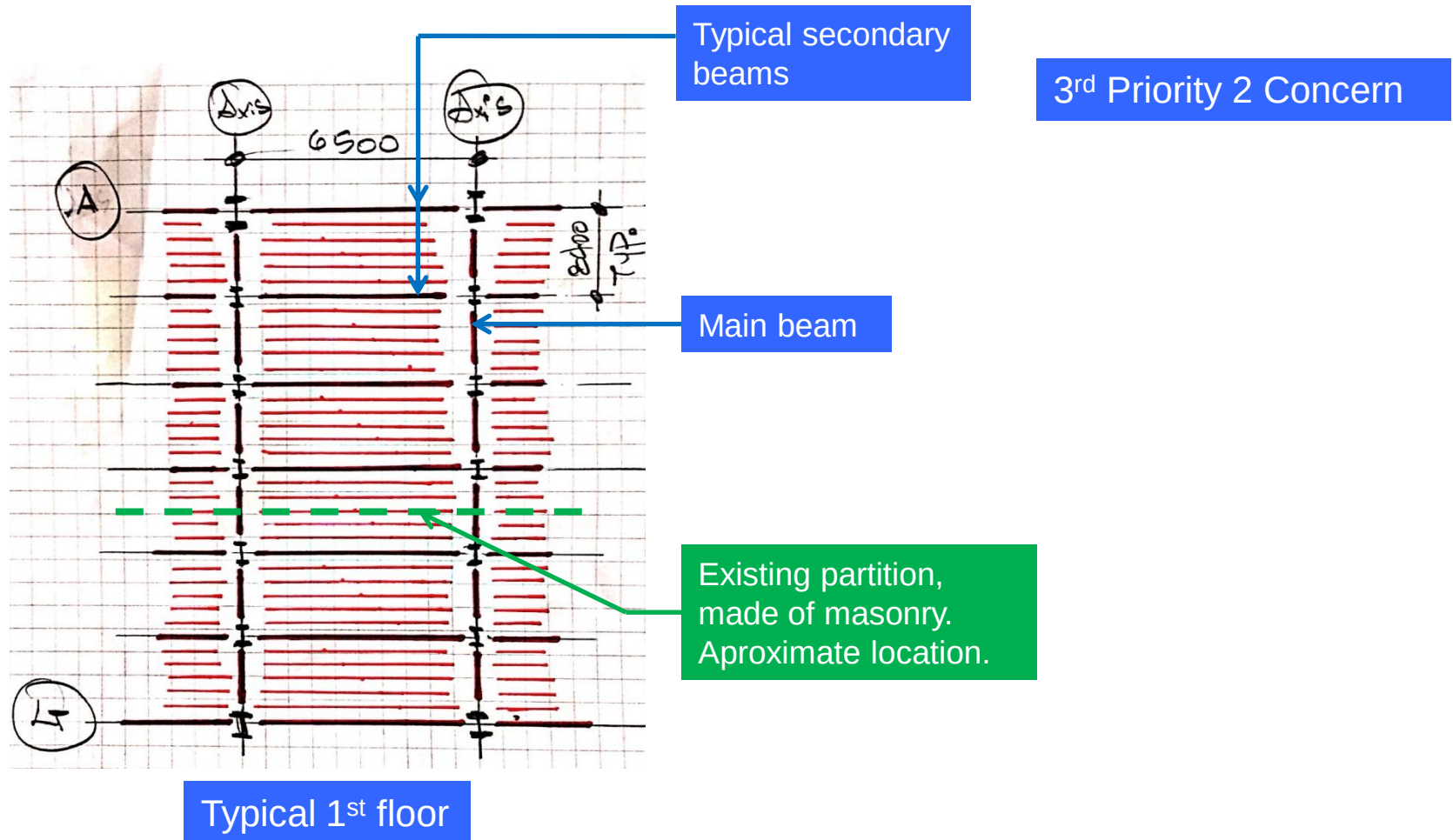
Existing welding
at the gosset plate

2nd Priority 2 Concern



New welding
at the gosset plate

At the Garment Building all of the bracing (made of an angle L75x75) connexion is done by welding fixed to a gosset plate at the column. For the member used for the bracing, the angle has to be welded on both side at the gosset plate. Also the neutral axis of the bracing, column and perpendicular beam aren't converging at the same point. This means that all the connexion of those members are capable to receive some moments. A design check of all of the bracing connexion structural must be included in the Detailed Engineering Assessment.



At the Garment Building, some existing partitions are located in parallel to the typical secondary beams. The beams located under the partition are not loaded as the typical secondary beams. A design check of all the beams located under the partition must be included in the Detailed Engineering Assessment.

Identified Priority 3 Concerns

Sheds - Flimsy Roofs

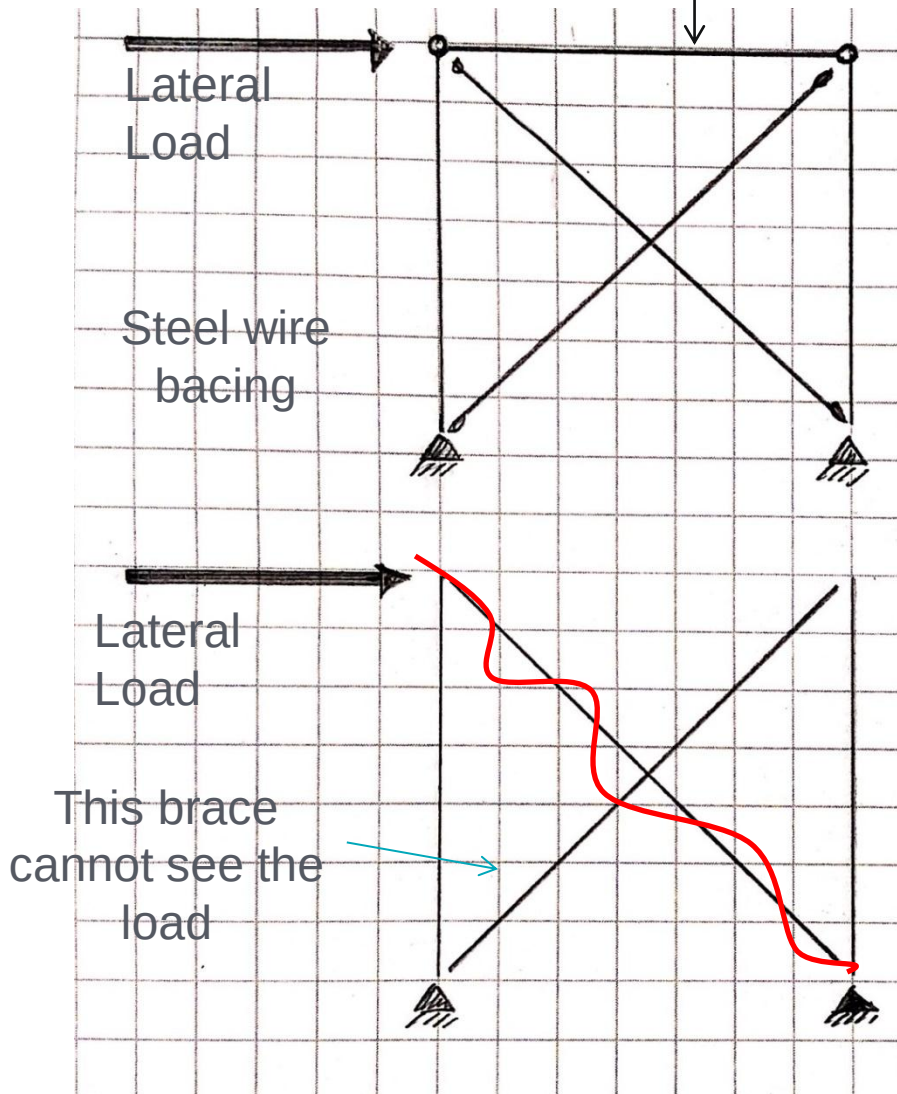
1st Priority 3 Concern



At the roof of the Generator Shed, the Fire pump Shed and the Boiler Shed all the steel roof must be verified for the uplift of these roofs including the bearing of these roofs made of brick walls. A design check of all of these sheds must be included in the Detailed Engineering Assessment.

Overall Stability System

Compression element

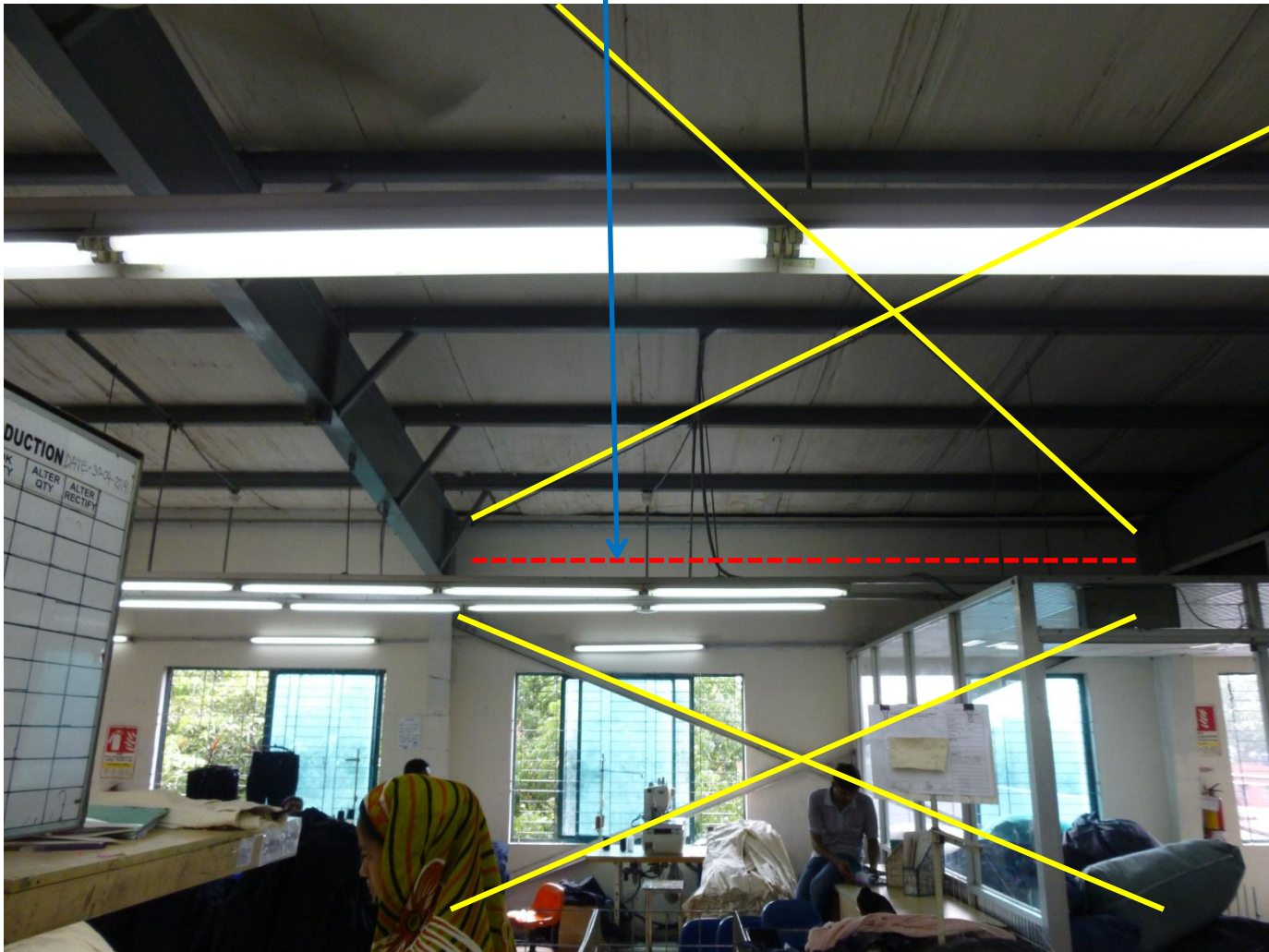


At the Garments Building, the structure should be detailing for adequate lateral restraints for beams and purlins. The building also had horizontal steel bars bracing for the roof diaphragm. And for the vertical bracing, the elements are an angle 75x75.

Where we have a concern is that at the end of the horizontal bracing, the vertical bracing does not always have the collecting element at the top (compression element).

We require that this item be investigated in a Detail Engineering Assessment

Missing compression element



Priority Actions

Problems Observed Summary

ITEM 1: Priority 1 – Garment Building – Steel columns.

ITEM 2: Priority 2 – Garment Building – No Fireproofing of the structural steel.

ITEM 3: Priority 2 – Garment Building - Welds for braces.

ITEM 4: Priority 2 – Garment Building - Heavy full height partition on typical size beam (1st floor).

ITEM 5: Priority 3 – All the 3 sheds - Flimsy Roofs for the sheds.

Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	Garment Building – Steel columns.	Verify steel columns: type of steel, plate thickness and weldings. Detail Engineering Assessment of Factory to be commenced, see attached scope.	Immediate – Now
2	Garment Building – Steel columns.	If deemed necessary by Factory Engineer, carry out any remedial works recommended.	6-weeks
3	Garment Building – No Fireproofing of the structural steel.	Fireproofing material for structural steel element is recommended as suggested in BNBC Codes.	6-weeks
4	Garment Building – No Fireproofing of the structural steel.	Maintain standard of quality control and protection of the fire protection.	6-months
5	Garment Building - Welds for braces.	The Factory Engineer is to carry out an assessment of the vertical (wall) bracing connexion at the column.	6-weeks
6	Garment Building - Welds for braces.	If deemed necessary by Factory Engineer, carry out any remedial works recommended.	6-months
7	Garment Building - Heavy full height partition on typical size beam (1st floor).	The Factory Engineer is to carry out an assessment of the wall supported by the typical beam of the 1st floor.	6-weeks
8	Garment Building - Heavy full height partition on typical size beam (1st floor).	If deemed necessary by Factory Engineer, carry out any remedial works recommended.	6-months
9	All the 3 sheds - Flimsy Roofs for the sheds.	The Factory Engineer is to carry out an assessment of the lightweight steel located at the roof of the sheds. Also this assessment must be done for the masonry walls.	6-weeks
10	All the 3 sheds - Flimsy Roofs for the sheds.	If deemed necessary by Factory Engineer, carry out any remedial works recommended.	6-months