

Deluxe Apparels Ltd.

14/ka, Ring Road, Shyamoli Dhaka
(23.766189 N, 90.341436E)

25th February 2015

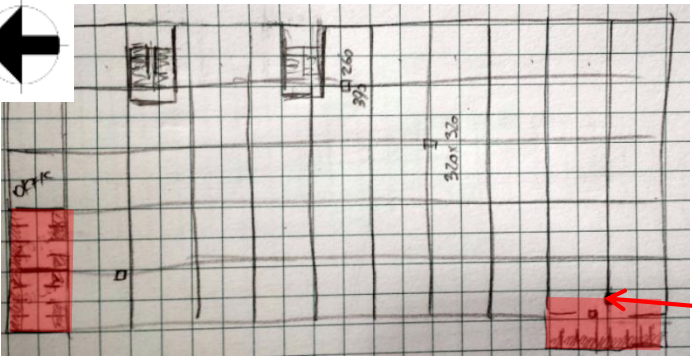


Observations

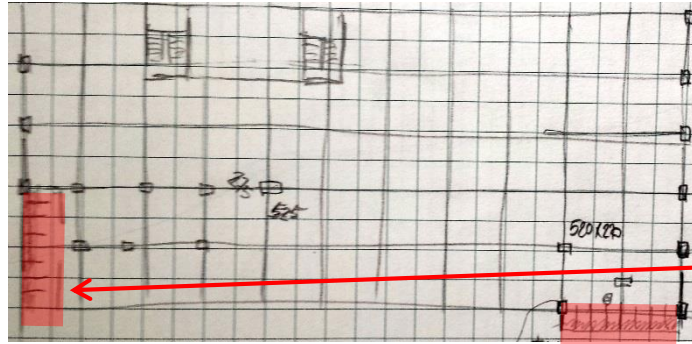
Columns appear to be stressed in excess of normal design limits



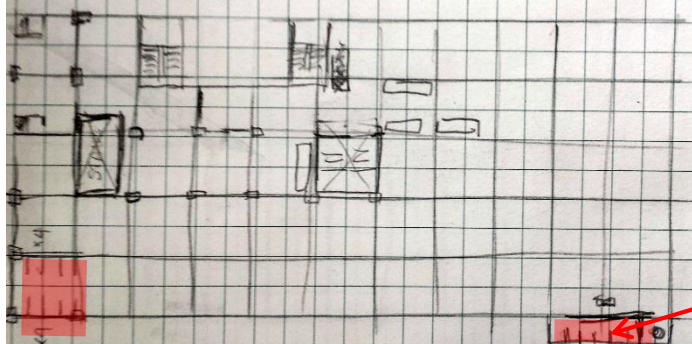
Cursory calculations indicate that column working stresses for internal columns and columns in the toilet areas are in excess of normal design limits.



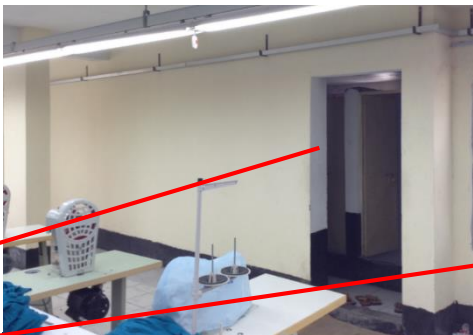
3rd floor



2nd floor



1st floor



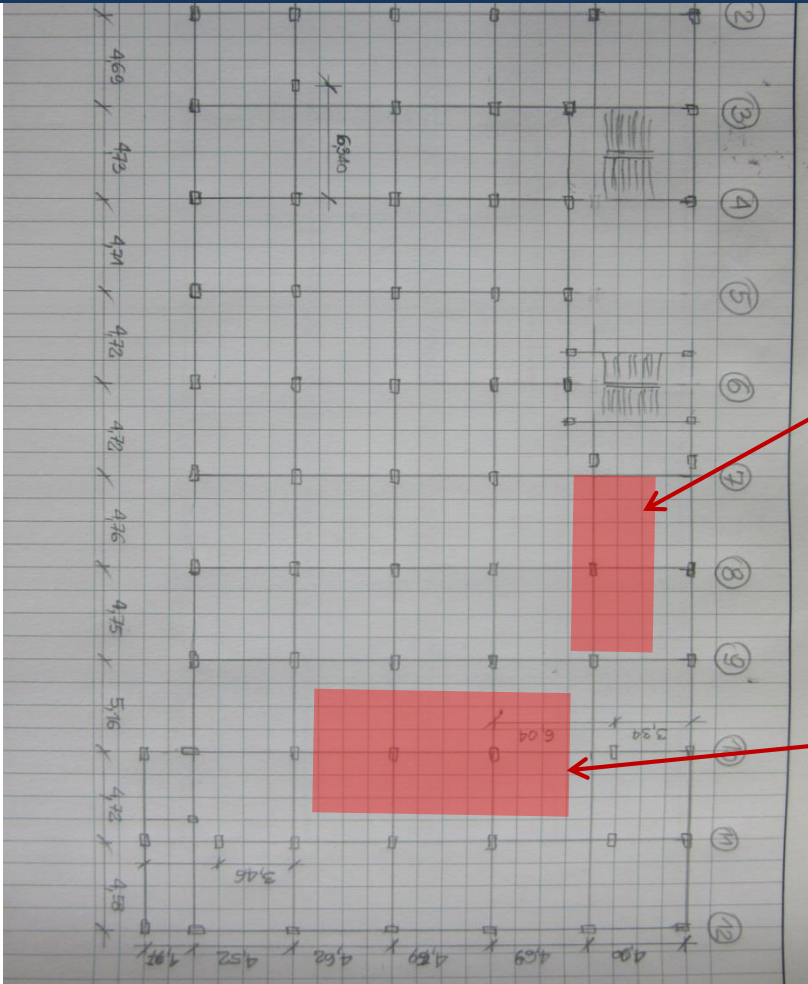
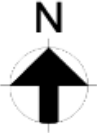
High toilet build-ups 90 mm



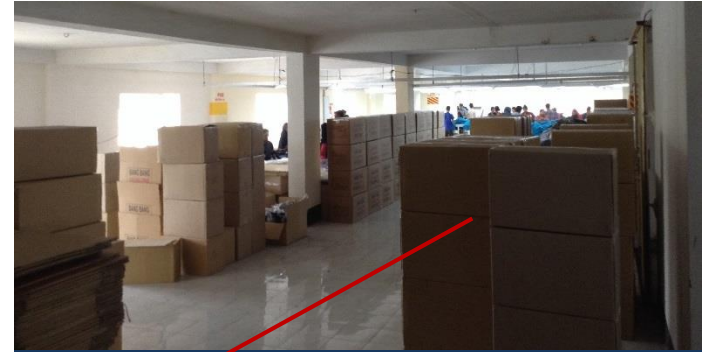
Boiler on 1st floor

Column Stresses

Building Engineer is to perform detailed calculations and concrete tests to prove column size - for internal columns and columns in the toilet areas



1st floor plan



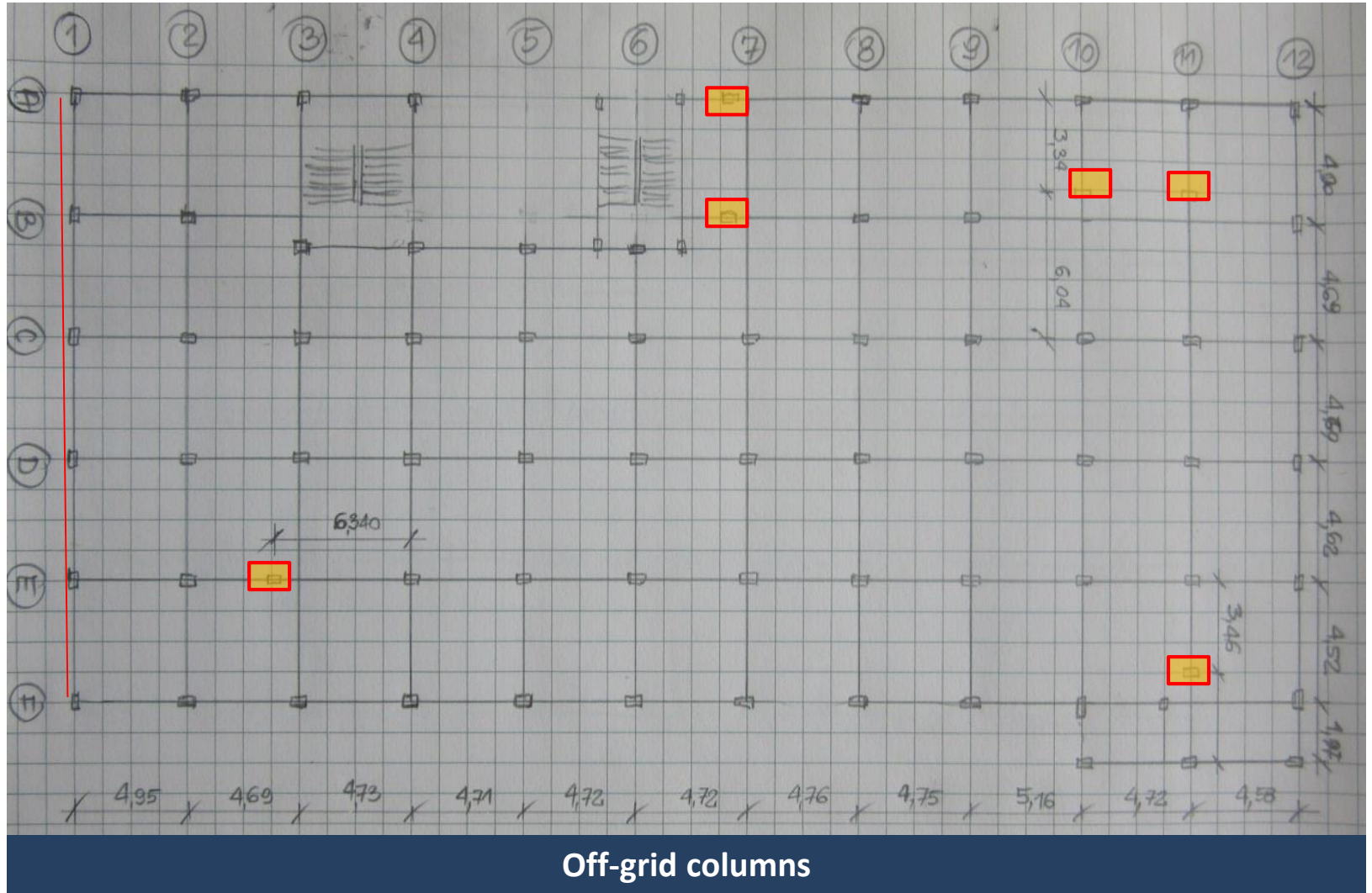
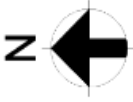
Storage loading on the 1st floor



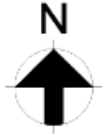
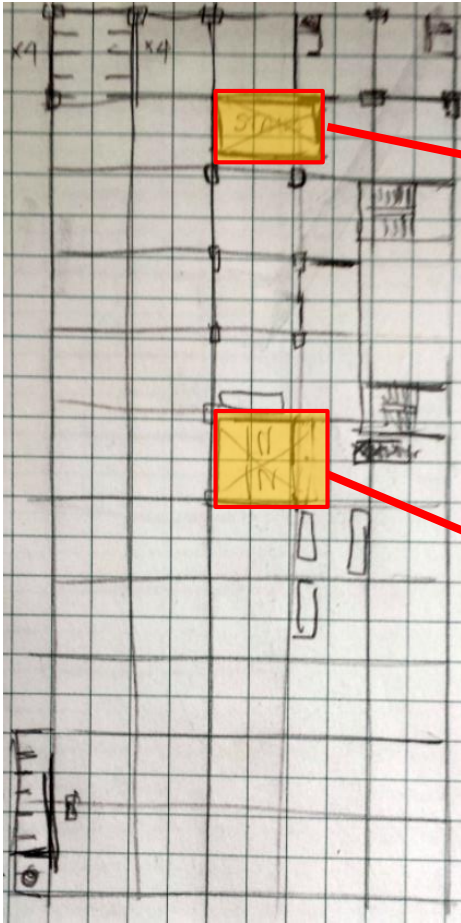
Storage loading on the 1st floor

Column Stresses

Lack of Permit Drawings, Design Drawings or Loading Plans



Inconsistent Column Grids



Two staircase constructed up to 1st floor and closed by fence walls

Enclosed Staircases

Priority Actions

Problems Observed

ITEM 1: Columns appear to be stressed in excess of normal design limits

ITEM 2: Lack of Permit drawings, design drawings or loading plans

Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	<p>Column working stresses for internal columns and columns in the toilet areas are in excess of normal design limits</p> <p>– Building Engineer to perform detailed calculations and concrete tests to prove column size for the current as-constructed building. Similarly Building Engineer to confirm by calculation that all columns are adequately sized to support the additional storey which is planned.</p>	<p>Maintain current use of the floors and don't change use or increase occupation, either of which could increase loading.</p>	<p>6-weeks</p>
2	<p>Column working stresses for internal columns and columns in the toilet areas are in excess of normal design limits</p> <p>– Building Engineer to perform detailed calculations and concrete tests to prove column size for the current as-constructed building. Similarly Building Engineer to confirm by calculation that all columns are adequately sized to support the additional storey which is planned.</p>	<p>Factory Engineer to review design, loads and column stresses as indicated above for the as-constructed building.</p>	<p>6-weeks</p>

Item No.	Observation	Recommended Action Plan	Recommended Timeline
3	<p>Column working stresses for internal columns and columns in the toilet areas are in excess of normal design limits – Building Engineer to perform detailed calculations and concrete tests to prove column size for the current as-constructed building. Similarly Building Engineer to confirm by calculation that all columns are adequately sized to support the additional storey which is planned.</p>	<p>Factory Engineer to review design, loads and column stresses in all building columns in the condition where the extra building storey is added.</p>	<p>6-weeks</p>
4	<p>Column working stresses for internal columns and columns in the toilet areas are in excess of normal design limits – Building Engineer to perform detailed calculations and concrete tests to prove column size for the current as-constructed building. Similarly Building Engineer to confirm by calculation that all columns are adequately sized to support the additional storey which is planned.</p>	<p>Verify existing reinforcement and insitu concrete strength either by 100mm diameter cores or existing cylinder strength data for cores from 4 columns</p>	<p>6-weeks</p>

Item No.	Observation	Recommended Action Plan	Recommended Timeline
5	<p>Column working stresses for internal columns and columns in the toilet areas are in excess of normal design limits</p> <p>– Building Engineer to perform detailed calculations and concrete tests to prove column size for the current as-constructed building. Similarly Building Engineer to confirm by calculation that all columns are adequately sized to support the additional storey which is planned.</p>	<p>Produce and actively manage a loading plan for all floor plates within the factory giving consideration to floor capacity and column capacity and to the planned future storey.</p>	<p>6-weeks</p>
6	<p>Column working stresses for internal columns and columns in the toilet areas are in excess of normal design limits</p> <p>– Building Engineer to perform detailed calculations and concrete tests to prove column size for the current as-constructed building. Similarly Building Engineer to confirm by calculation that all columns are adequately sized to support the additional storey which is planned.</p>	<p>Continue to implement load plan</p>	<p>6-months</p>

Item No.	Observation	Recommended Action Plan	Recommended Timeline
7	Lack of permit drawings, design drawings or loading plans	Engage Building Engineer to prepare as-built documentation including Allowable Floor Loading Plans (See Item 1)	6-weeks
8	Lack of permit drawings, design drawings or loading plans	Maintain up to date Allowable Floor Loading Plans	6-months