

Sung Kwang Apparels Ltd (10354)

Plot #1384-86, 1420-21, Vogra, Bason Sarak, Chandona, Gazipur

(+23.97536N, +90.37171E)

03.MAY.2014



Identified Priority 1 Concerns

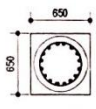
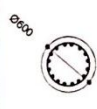
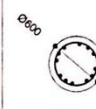
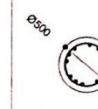
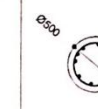
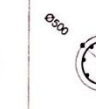
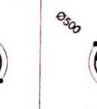
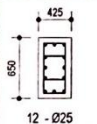
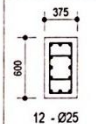
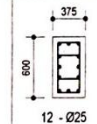
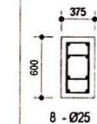
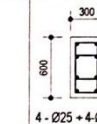
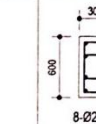
(None)

Identified Priority 2 Concerns

High Column Stresses

No Loading Plan & High Storage Levels

Priority 2 Concern

COL. NO	CONCRETE $F'_c = 4000$ PSI				CONCRETE $F'_c = 3000$ PSI		
	UPTO G.FL	GL TO 1ST. FLOOR	1ST FL TO 2ND. FLOOR	2ND FL TO 3RD. FLOOR	3RD FL TO 4TH. FLOOR	4TH FL TO 5TH. FLOOR	5TH FL TO ROOF
C1	 650 650 16 - Ø25	 Ø600 16 - Ø25	 Ø600 12 - Ø25	 Ø500 6 - Ø25+6-Ø20	 Ø500 10-Ø20	 Ø500 8-Ø20	 Ø500 4-Ø20 + 4-Ø16
C2	 650 425 12 - Ø25	 600 375 12 - Ø25	 600 375 12 - Ø25	 600 375 8 - Ø25	 600 300 4 - Ø25 + 4-Ø20	 600 300 8-Ø20	 600 300 4-Ø20 + 4-Ø16
C3	 350 350 8 - Ø16	 300 300 8 - Ø16					

Under minimum allowable live loads the column stresses are higher than desirable.



No Loading Plan & High Storage



An Engineer's letter was provided indicating that an allowable live load of 100 psf for all floor slabs within the factory. However, during inspection there were high levels of storage observed sporadically throughout the building and no load monitoring appeared to be taking place.

No Loading Plan & High Storage

Identified Priority 3 Concerns

(None)

Overall Stability System



All floors above the Ground Floor level were constructed of beam/slab configurations. This construction is assumed to provide at least partial moment frame action. However, no distinct and robust lateral restraint system was observed.



Lateral Restraint System

Water Ingress at Roof Level



At the roof level we observed a waterproofing layer consisting of bitumen impregnated burlap fabric being applied to the top of the roof slab. There was no evidence of water ingress at the underside of the roof slab.

Roof Waterproofing System

Priority Actions

Problems Observed Summary

ITEM 1: (Priority 2) Under the minimum allowable live loads, column checks indicate that the columns at the Ground Floor level may have lower than desirable safety factors.

ITEM 2: (Priority 2) No explicit slab loading plans were available, nor was there any evidence of slab load monitoring. There was heavy storage observed sporadically throughout the factory building.

Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	Under the minimum allowable live loads, column checks indicate that the columns at the Ground Floor level may have lower than desirable safety factors.	Reduce storage levels throughout the factory	Immediate – Now
2	Under the minimum allowable live loads, column checks indicate that the columns at the Ground Floor level may have lower than desirable safety factors.	Factory engineer to review design, loads and column stresses throughout factory.	6-weeks
3	Under the minimum allowable live loads, column checks indicate that the columns at the Ground Floor level may have lower than desirable safety factors.	Complete implementation of any works deemed necessary by the factory engineer's review.	6-months
4	No explicit slab loading plans were available, nor was there any evidence of slab load monitoring. There was heavy storage observed sporadically throughout the factory building.	Reduce storage levels throughout the factory	Immediate – Now
5	No explicit slab loading plans were available, nor was there any evidence of slab load monitoring. There was heavy storage observed sporadically throughout the factory building.	Factory engineer to develop a loading plan for each floor within the factory complex, giving consideration to slab, beam and column capacity.	6-weeks
6	No explicit slab loading plans were available, nor was there any evidence of slab load monitoring. There was heavy storage observed sporadically throughout the factory building.	Have implemented and actively monitor the loading plan	6-months