

Renaissance Apparels Ltd. (10009)

C-S, Plot #659, 660, Mouza #93, Gazipur

(+23.985861N, 90.353043E)

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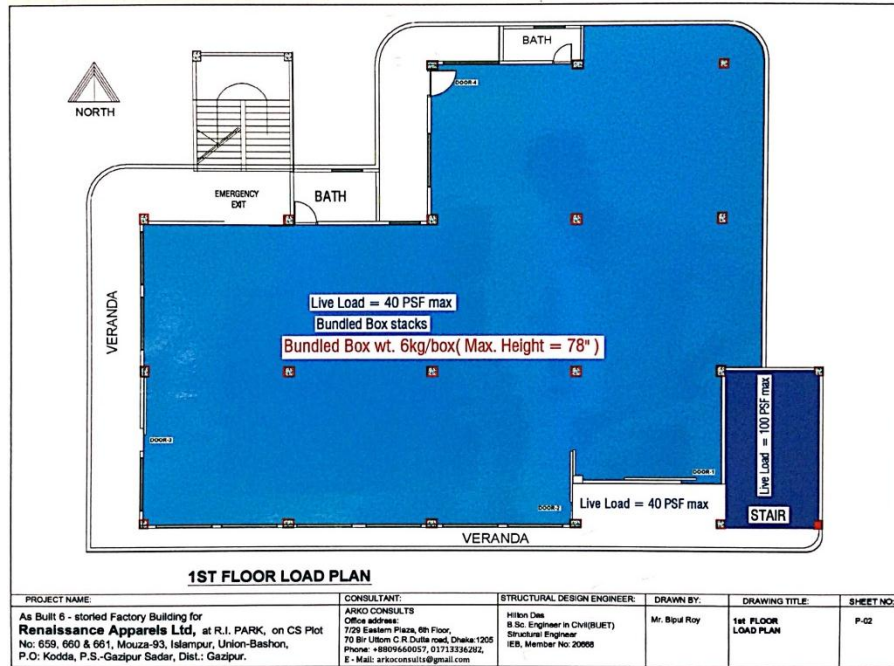
Identified Priority 1 Concerns

1st Priority 1 Concern



Critical columns of the office building are overstressed.

2nd Priority 1 Concern



Loadings plans were posted but overloading was observed on 1st floor of office building.

3rd Priority 1 Concern

COLUMN SCHEDULE							
COL NO	BELOW GROUND	GROUND FLOOR	1ST FLOOR	2ND FLOOR	3RD FLOOR	4TH FLOOR	4TH FLOOR
C1	5	6 # 16 mm dia strup 10 dia @ 5710" c/c 15"X15"	6 # 16 mm dia strup 10 dia @ 5710" c/c 12"X12"	6 # 16 mm dia strup 10 dia @ 5710" c/c 12"X12"	6 # 16 mm dia strup 10 dia @ 5710" c/c 12"X12"	4 # 16 mm dia strup 10 dia @ 5710" c/c 12"X12"	4 # 16 mm dia strup 10 dia @ 5710" c/c 12"X12"
C2	12	8 # 16 mm dia strup 10 dia @ 5710" c/c 15"X18"	8 # 16 mm dia strup 10 dia @ 5710" c/c 12"X15"	8 # 16 mm dia strup 10 dia @ 5710" c/c 12"X15"	6 # 16 mm dia strup 10 dia @ 5710" c/c 12"X14"	6 # 16 mm dia strup 10 dia @ 5710" c/c 12"X12"	6 # 16 mm dia strup 10 dia @ 5710" c/c 12"X12"
C3	7	10 # 16 mm dia strup 10 dia @ 5710" c/c 18"X18"	10 # 16 mm dia strup 10 dia @ 5710" c/c 15"X15"	10 # 16 mm dia strup 10 dia @ 5710" c/c 15"X15"	10 # 16 mm dia strup 10 dia @ 5710" c/c 15"X15"	8 # 16 mm dia strup 10 dia @ 5710" c/c 15"X15"	8 # 16 mm dia strup 10 dia @ 5710" c/c 15"X15"
NOTE: COVERING PADESTAL COLUMN 2.570". GROUND FLOOR 1.5". CASTING 1: 15. 3. WITH STONE CHEERS. ALL COLUMNS ARE 100% WITH BRICK CHEERS.			COVERING UP TO 2RD FLOOR 1.1". CASTING 1: 15. 3. WITH BRICK CHEERS.		COVERING UP TO 3RD FLOOR 1.1". CASTING 1: 15. 3. WITH BRICK CHEERS.		

Critical column was measured 16"x16" in situ and ferroskan results showed 12 - #16mm diameter reinforcing.

The structural drawings for the office building and production building do not match existing conditions. In addition, no drawings were made available for the remaining ancillary buildings.

COLUMN SCHEDULE			
COLUMN NO	BELOW GROUND	GROUND FLOOR	GROUND FLOOR
C1	20	15"X20" 8 # 16mm dia	12"X18" 8 # 16mm dia
C2	20	15"X18" 8 # 16 mm dia	12"X18" 6 # 16 mm dia
C3	6	15"X18" 4 # 20 mm dia 2 # 16 mm dia	12"X18" 4 # 20 mm dia 2 # 16 mm dia
C4	4	15"X18" 10 # 16 mm dia	12"X18" 10 # 16 mm dia
NOTE: COVERING OF THE PADESTAL 2.8" GROUND TO ABOVE COLUMN 1.8" STRUP 8 MM DIA @ 5" & 8" C/C. ALL MS ROD @ GRADE.			

Critical column was measured 12"x15" in situ.

Identified Priority 2 Concerns

1st Priority 2 Concern



North concrete stairs of office building are connected to an adjacent concrete building. No expansion joint was visible between the two structures, and the link appears insufficient to brace buildings in case of seismic activity.

2nd Priority 2 Concern



Poor steel detailing was observed for the roof above the north stairs of the office building at the 5th floor. Poor connections between the steel angles and the concrete columns were observed.

3rd Priority 2 Concern



Water tank structure appears inadequately designed. The steel plate floor supporting the water tank, as well as the steel angle braces in compression, appear under designed.

Overall Stability System



The building did not feature any core or shear walls. Stability was achieved through sway action between beams and columns and masonry infill walls.

We require that these items be investigated in a Detail Engineering Assessment

Water Ingress at Roof Level



No waterproofing membrane was visible on the roof of the building. This means that any cracks in the surface finishes on the roof will allow water to seep into the concrete slab beneath the finishes, and cause corrosion of the reinforcing steel.

Priority Actions

Problems Observed Summary

- ITEM 1: (Priority 1) Critical columns of the office building are overstressed.**
- ITEM 2: (Priority 1) Loadings plans were posted but overloading was observed on 1st floor of office building.**
- ITEM 3: (Priority 1) The structural drawings for the office building and production building do not match existing conditions. In addition, no drawings were made available for the remaining ancillary buildings.**
- ITEM 4: (Priority 2) North concrete stairs of office building are connected to an adjacent concrete building.**
- ITEM 5: (Priority 2) Poor steel detailing was observed for the roof above the north stairs of the office building at the 5th floor.**
- ITEM 6: (Priority 2) Water tank structure appears inadequately designed.**
- ITEM 7: (Priority 2) Overall Stability.**
- ITEM 8: (Priority 3) Water Ingress.**

Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	Critical columns of the office building are overstressed.	Remove storage on 1st floor of office building down to a maximum of 2.0 kPa (40 psf). Design Engineer to review design, loads and columns stresses in area identified above.	Immediate - Now
2	Critical columns of the office building are overstressed.	Verify insitu concrete stresses by laboratory testing. A Detailed Engineering Assessment is required to determine the load carrying capacity of the structure.	6-weeks
3	Critical columns of the office building are overstressed.	Implement recommendations from DEA.	6-months
4	Loadings plans were posted but overloading was observed on 1st floor of office building.	As mentioned earlier, remove all loading on all floors of the office building down to a maximum of 2.0 kPa (40 psf), and no materials or fabrics should be stacked higher than 3'. Adhere to posted loading plans.	Immediate - Now
5	The structural drawings for the office building and production building do not match existing conditions. In addition, no drawings were made available for the remaining ancillary buildings.	Design Engineer to review existing conditions of office building and production building and revise drawings.	Immediate - Now
6	The structural drawings for the office building and production building do not match existing conditions. In addition, no drawings were made available for the remaining ancillary buildings.	Produce structural as-built drawings for all ancillary buildings.	6-weeks
7	North concrete stairs of office building are connected to an adjacent concrete building.	Detailed Engineering Assessment is required for concrete link between the two buildings.	6-weeks
8	North concrete stairs of office building are connected to an adjacent concrete building.	Implement any recommendations from DEA.	6-months

Item No.	Observation	Recommended Action Plan	Recommended Timeline
9	Poor steel detailing was observed for the roof above the north stairs of the office building at the 5th floor.	A Detailed Engineering Assessment is required for steel roof above north stairs.	6-weeks
10	Poor steel detailing was observed for the roof above the north stairs of the office building at the 5th floor.	Implement any recommendations from DEA.	6-months
11	Water tank structure appears inadequately designed.	A Detailed Engineering Assessment is required for the water tank structure.	6-weeks
12	Water tank structure appears inadequately designed.	Implement any recommendations from DEA.	6-months
13	Overall Stability.	Request that the Detail Engineering Assessment of the overall building to be carried out and in particular, stability and foundation aspects should be investigated in detail.	6-weeks
14	Water Ingress.	Factory Engineer to inspect water damaged structures and repair with a suitable method. Waterproofing on the roof slab is recommended. Moreover the slab drainage system should be investigated. Maintain standard of quality control.	6-months