

YAGI BANGLADESH GARMENTS LTD.

HP TOWER, NORTH BARON, P.O: ALIYA MADRASA, P.S: ASHULIA, UZ: SAVAR, DIST: DHAKA
(23.939178 N, 90.298774 E)

1st November 2015



Observations

FOOTING SCHEDULE

NAME OF FOOTING	SIZE OF FOOTING		BASE THICKNESS			REINFORCEMENT		REMARKS
	L X B	I X b	t ₁	t ₂	T	LONG BAR	SHORT BAR	
F1	10'-0"x12'-0"	3'-0"x3'-0"	24"	6"	30"	20mmØ @ 5"C/C (at bottom) 16mmØ @ 8"C/C (at top)	20mmØ @ 5"C/C (at bottom) 16mmØ @ 8"C/C (at top)	USE DEFORMED BAR (60000 psi)
F2	12'-0"x14'-0"	3'-0"x4'-0"	30"	6"	36"	20mmØ @ 5"C/C (at bottom) 16mmØ @ 8"C/C (at top)	20mmØ @ 5"C/C (at bottom) 16mmØ @ 8"C/C (at top)	
F3	14'-0"x16'-0"	4'-0"x5'-0"	30"	6"	36"	20mmØ @ 5"C/C (at bottom) 16mmØ @ 8"C/C (at top)	20mmØ @ 5"C/C (at bottom) 16mmØ @ 8"C/C (at top)	
F4	8'-0"x10'-0"	3'-0"x3'-0"	24"	6"	30"	20mmØ @ 5"C/C (at bottom) 16mmØ @ 8"C/C (at top)	20mmØ @ 5"C/C (at bottom) 16mmØ @ 8"C/C (at top)	
F5	8'-0"x8'-0"	3'-0"x3'-0"	24"	6"	30"	20mmØ @ 5"C/C (at bottom) 16mmØ @ 8"C/C (at top)	20mmØ @ 5"C/C (at bottom) 16mmØ @ 8"C/C (at top)	

COLUMN SCHEDULE

NAME OF COLUMN	SIZE OF COLUMN				REINFORCEMENT			REMARKS
	UP TO G.B	G.R to 1st. FL.	2nd. to 5th. F.L.	UP to 7th. FL.	UP to 1ST	2ND TO 5TH	5th. to 7TH. FL.	
C1	17"x22"	15"x20"	15"x20"	15"x20"	14-22mmØ	12-20mmØ	10-20mmØ	USE DEFORMED BAR OF (60000 psi)
C2	20"x22"	18"x20"	18"x20"	18"x20"	18-22mmØ	16-20mmØ	14-20mmØ	
C3	22"x26"	20"x24"	20"x24"	20"x24"	22-22mmØ	20-20mmØ	18-20mmØ	
C4	22"Ø	20"Ø	20"Ø	20"Ø	13-22mmØ	11-20mmØ	11-20mmØ	
C5	LIFT DETAIL	LIFT DETAIL	LIFT DETAIL	LIFT DETAIL	8-16mmØ	8-16mmØ	8-16mmØ	



Design Drawing

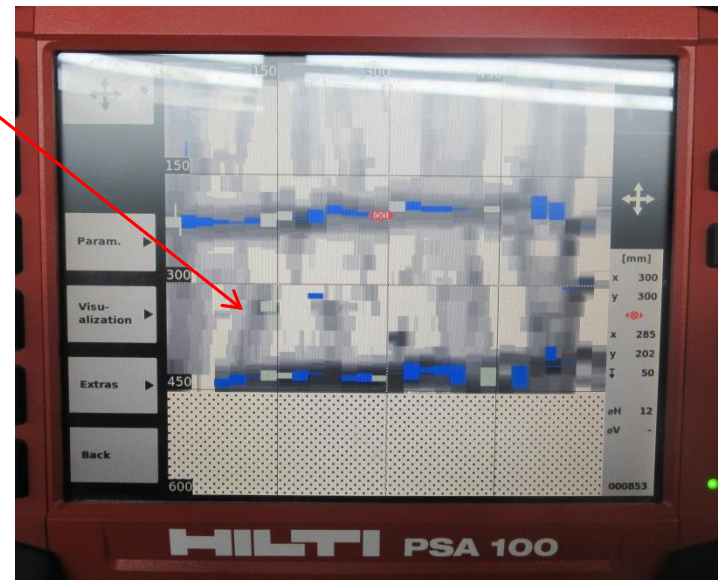
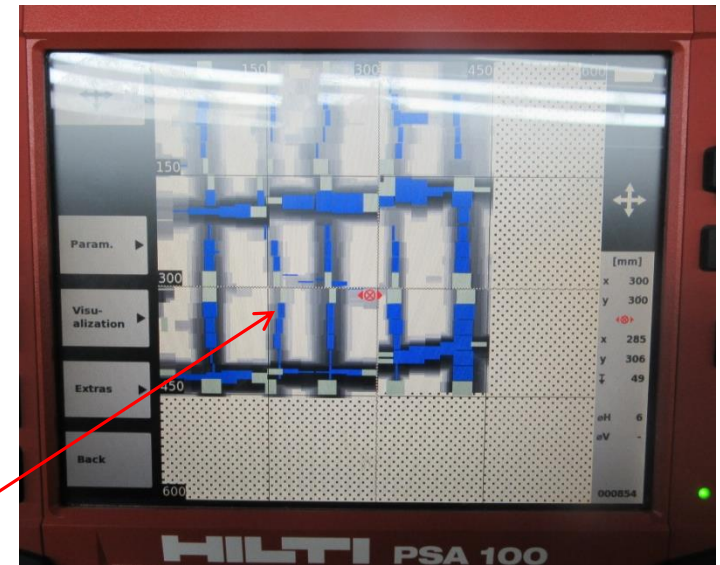
Some of the column rebars were exposed at roof level. Some of them were not matching with the design drawings. Approximately two bars were less.

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C2	20"x22"	18"x20"	18"x20"	18"x20"	18-22mmØ	16-20mmØ	14-20mmØ	
C3	22"x26"	20"x24"	20"x24"	20"x24"	22-22mmØ	20-20mmØ	18-20mmØ	
C4	22"Ø	20"Ø	20"Ø	20"Ø	13-22mmØ	11-20mmØ	11-20mmØ	
C5	LIFT DETAIL	LIFT DETAIL	LIFT DETAIL	LIFT DETAIL	8-16mmØ	8-16mmØ	8-16mmØ	



Design Drawing

Typical C3 column reinforcement was found to be 18no. 22mm bars instead of 22no.

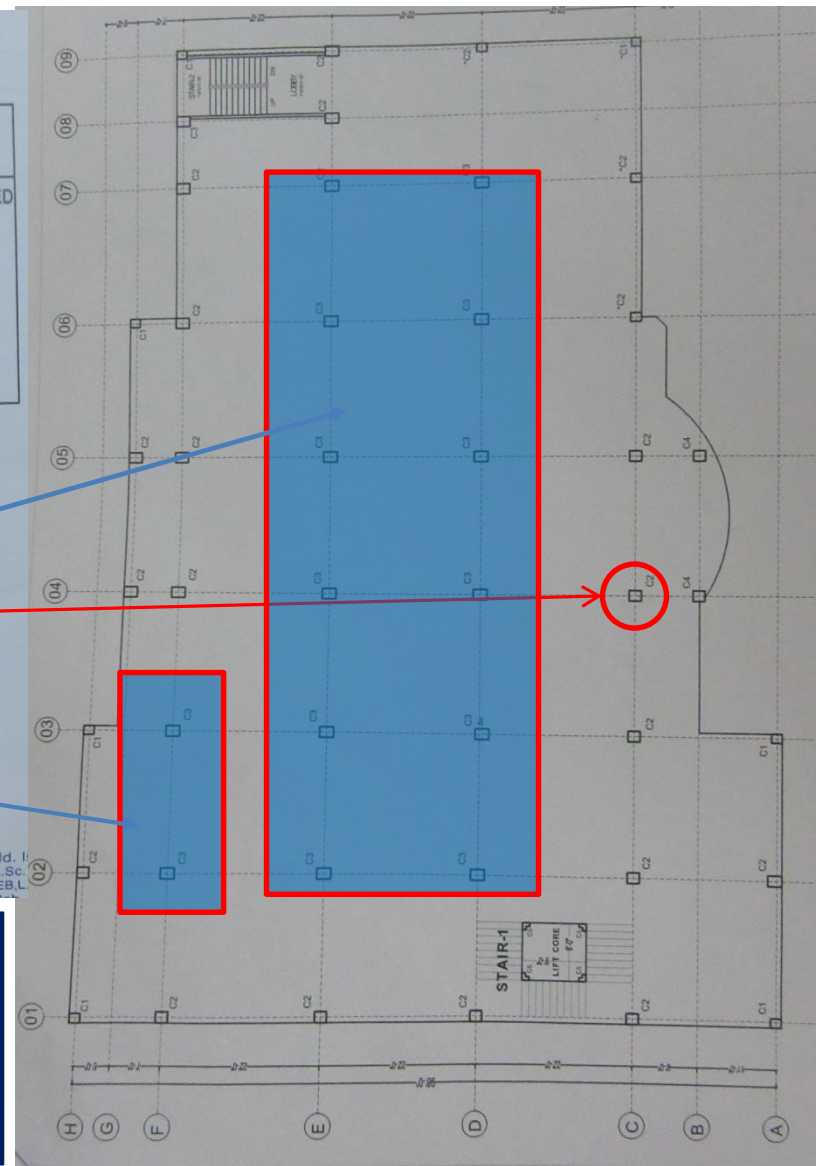
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COLUMN SCHEDULE

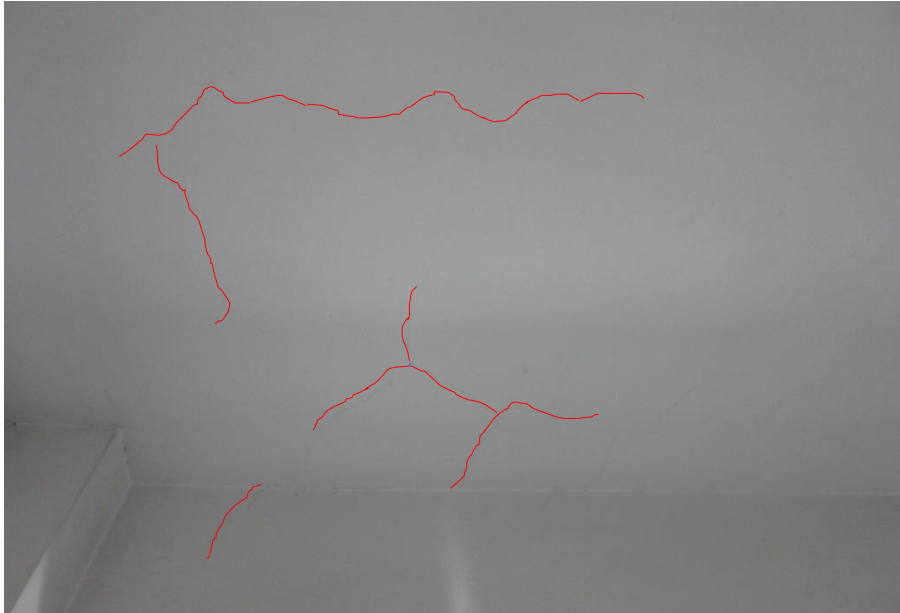
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C2	20"x22"	18"x20"	18"x20"	18"x20"	18-22mmØ	16-20mmØ	14-20mmØ	
C3	22"x26"	20"x24"	20"x24"	20"x24"	22-22mmØ	20-20mmØ	18-20mmØ	
C4	22"Ø	20"Ø	20"Ø	20"Ø	13-22mmØ	11-20mmØ	11-20mmØ	
C5	LIFT DETAIL	LIFT DETAIL	LIFT DETAIL	LIFT DETAIL	8-16mmØ	8-16mmØ	8-16mmØ	

Typical C3 column dimension is measured as 18" by 24" where as it is shown as 20" by 24" on the design drawings. One of the C2 type column dimension also not matching with the design.



Hairline Cracks at Beams and Slabs

Observation



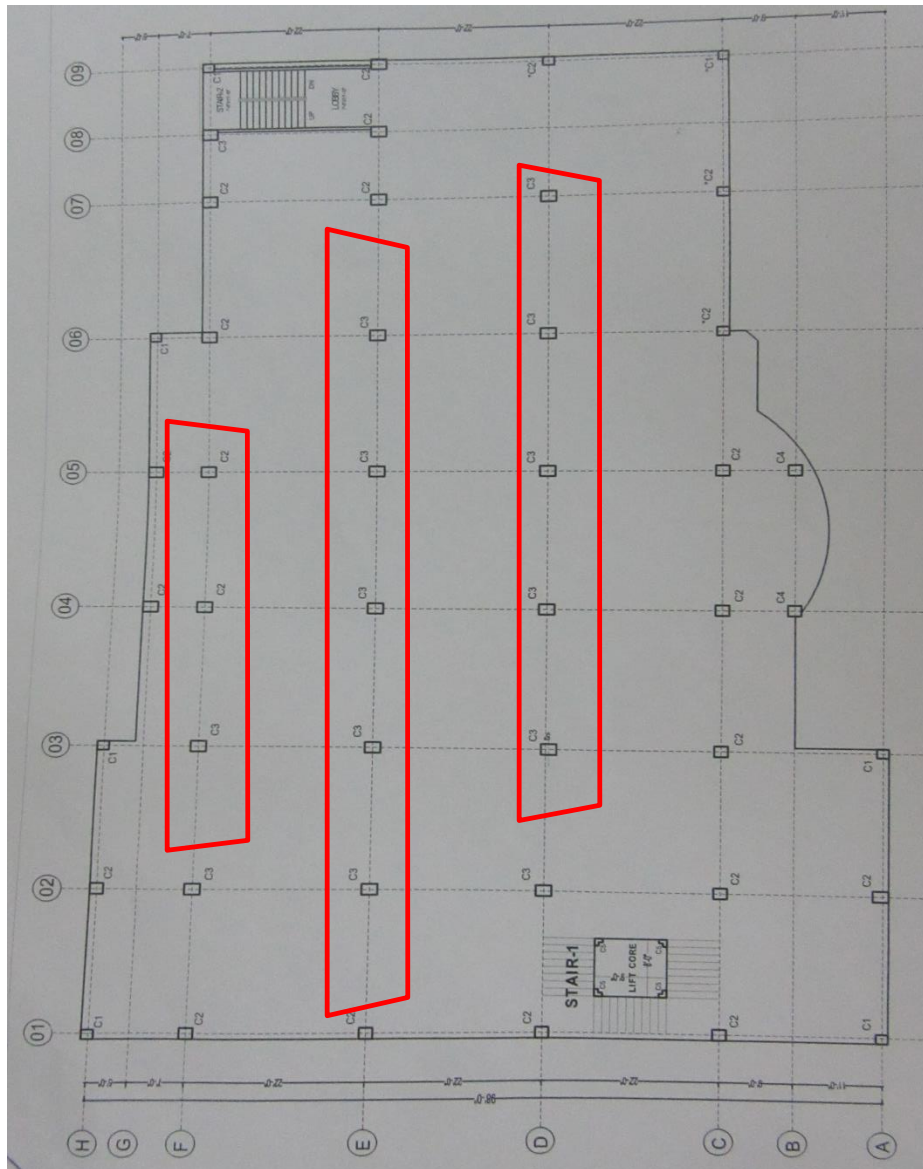
Cracks observed at some slabs.



Cracks observed at almost all beams.

Stres Level at Columns

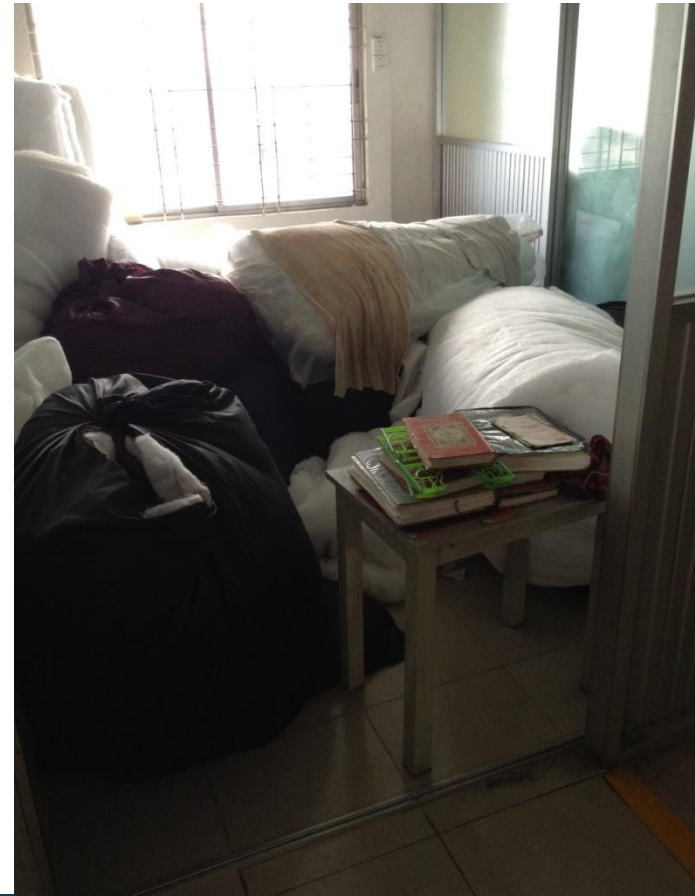
Observation



Columns at marked areas
have found to have high
stress levels.

Disorganized Loading at Some Areas

Observation



No load plan for storage area in different floors

Other Observations

Observation



Rebars were exposed at roof level.

No water insulation observed above roof slab.

Priority Actions

Problem Observed:

ITEM 1: Stress Level at Columns

ITEM 2: Cracks at Beams and Slabs – Controlled Loading at Storage Areas

ITEM 3: Discrepancies between Design Drawings and Observations

ITEM 4: Exposed Rebars and Ponding at Roof Level

Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	Stress Level at Columns	Building Engineer to review design, loads and stresses in columns in the area noted.	6-weeks
2	Stress Level at Columns	Building Engineer to verify in-situ concrete strength by taking 100mm diameter cores from 4 columns.	6-weeks
3	Stress Level at Columns	Building Engineer to verify grade of steel reinforcement and no. and diameter of main column bars.	6-weeks
4	Stress Level at Columns	Make structural alterations if required as advised by Engineer.	6-months
5	Hairline Cracks at Beams and Slabs	Monitoring should be done to observe propagation and changes in the width/length of the cracks.	6-weeks
6	Hairline Cracks at Beams and Slabs	Cracks to be checked for any structural damage.	6-weeks
7	Hairline Cracks at Beams and Slabs	Loading plan to be prepared for warehouse and accessory store at the first floor to control the loading limits.	6-weeks
8	Hairline Cracks at Beams and Slabs	Necessary structural alterations should be done based on the outcome of the investigations.	6-months

Item No.	Observation	Recommended Action Plan	Recommended Timeline
9	Discrepancies between Design Drawings and Observations	Column dimensions and reinforcement ratios are found not to be matching with the design drawings. As-built drawings should be prepared by the Building Engineer.	6-weeks
10	Discrepancies between Design Drawings and Observations	Information on the as-built drawings should be compared with the data used for the detailed assessment and necessary further studies to be carried out.	6-months
11	Discrepancies between Design Drawings and Observations	Necessary alterations to the structural members to be done regarding the results of the detailed assessment study.	6-months
12	Exposed Column Rebars and Ponding at Roof Level	The construction have been completed however some of the column rebars are still exposed.	6-weeks
13	Exposed Column Rebars and Ponding at Roof Level	Ponding have been observed at roof.	6-weeks
14	Exposed Column Rebars and Ponding at Roof Level	Building engineer to take necessary actions to close the exposed rebars, prevent ponding and apply proper water insulation at roof level.	6-weeks