



Arrow Fabrics (Pvt) Ltd.

Plot 50-51, Sector-3, KEPZ, North Patenga, EPZ Thana, Chittagong
(22.276046, 91.794600)

07th November 2018

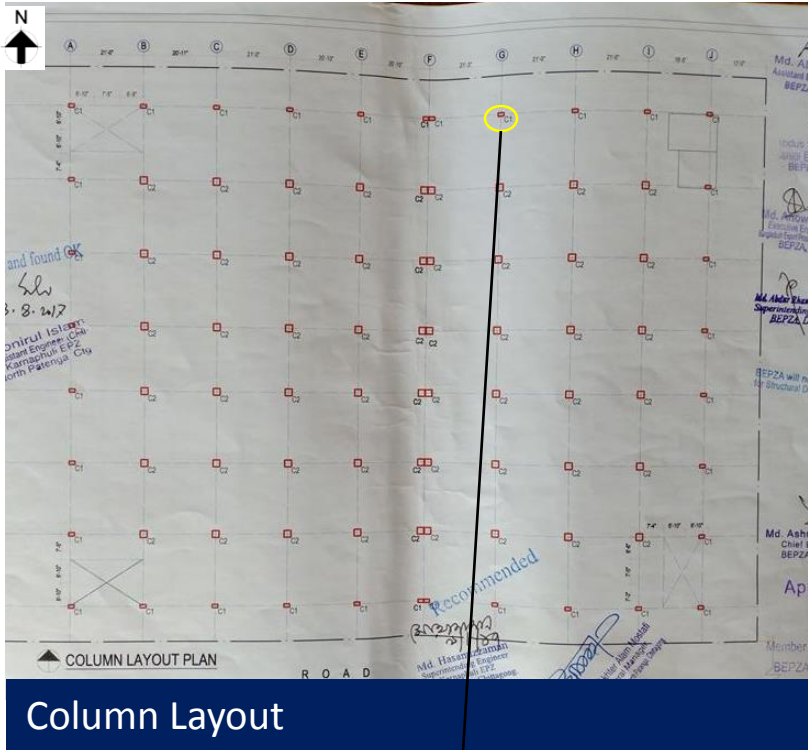




Observations



Discrepancies between provided drawing and on site condition

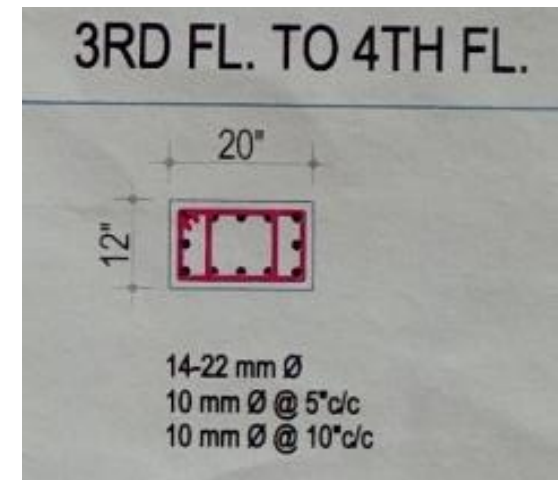


At C-1 type column, 10 nos. rebar was found instead of 12nos. by ferro scanning on 3rd floor. On the other hand, sectional details shown 12 nos. of rebar whereas statement shows 14 nos. of rebar.

COLUMN SCHEDULE

COLUMN SIZE	BELOW GB	GL TO 2ND FLOOR	3RD FL. TO 4TH FL.
C1-12"X20"	14-22 mm Ø 10 mm Ø @ 5" c/c 10 mm Ø @ 10" c/c	14-22 mm Ø 10 mm Ø @ 5" c/c 10 mm Ø @ 10" c/c	14-22 mm Ø 10 mm Ø @ 5" c/c 10 mm Ø @ 10" c/c
C2-24"X24"	20-22 mm Ø 10 mm Ø @ 5" c/c 10 mm Ø @ 10" c/c	20-22 mm Ø 10 mm Ø @ 5" c/c 10 mm Ø @ 10" c/c	20-22 mm Ø 10 mm Ø @ 5" c/c 10 mm Ø @ 10" c/c

NOTE:
 1.Reinforcement $F_y=60000$ psi
 2.Concrete $f_c=3300$ psi for column



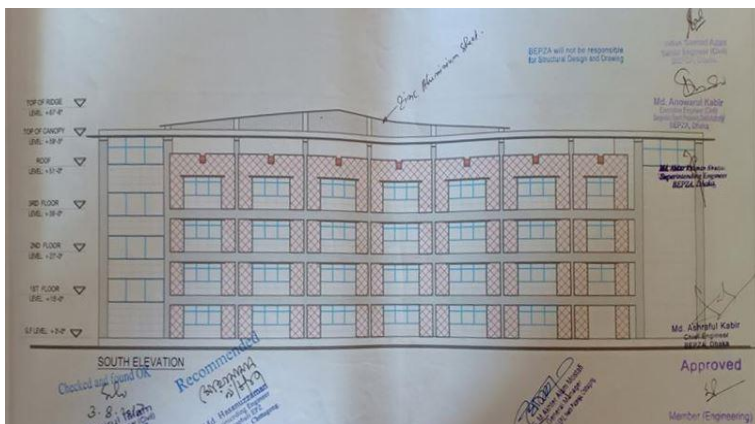


Possible vertical extension

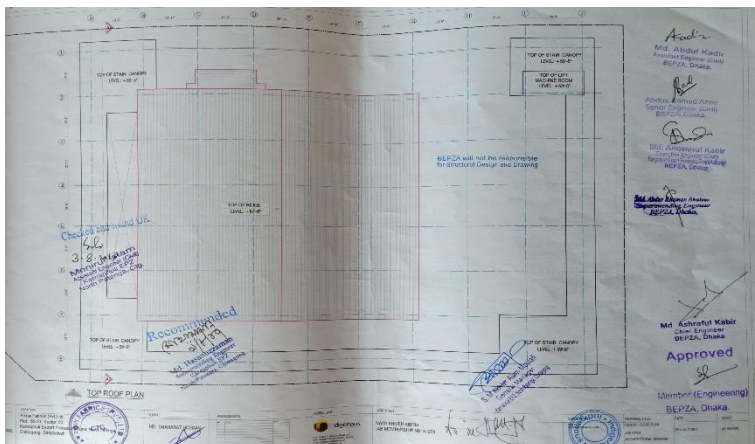
Observations: Production Building



This building is permitted for 5 (G+4) storied from BEPZA. Currently the building is 3 storied. Factory has a future plan to built a shed on current roof. Proposed drawings were available during inspection. Factory engineer is required to carried out a Detail Engineering Assessment considering BNBC provision prior to any extension work.



BEPZA Permit drawing shown 5 storied



Proposed roof



Current roof of factory building



Non-engineered shed above Utility Building

7 **Observations: Utility Building**



Apparently non-engineered shed above utility building at west. Poor connection between support and rafter. Building engineer to check the stability of the lightweight steel roofs against lateral loading. Also, replace the stair with a stable one.



Unstable Stair



Light weight roof supported by Bamboo



Problems Observed

Production Building

- 1: Discrepancies between provided drawing and on site condition.
- 2: Possible vertical extension.

Utility Building

- 3: Non-engineered shed above utility Building.



Priority Actions



Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	Discrepancies between provided drawing and on site condition. (Production building)	Building engineer to survey the building and produce as-built documentation reflecting the as constructed condition.	6-weeks
2	Possible vertical extension (Production building)	In case of extension, factory engineer to be carried out further analysis and update design report following BNBC requirement.	6-weeks
3	Non-engineered shed above utility Building. (Utility Building)	Prepare an “as constructed” drawings which reflect the actual site dimensions with complete structural information.	6-weeks
4	Non-engineered shed above utility Building. (Utility Building)	Building engineer to check the capacity of the lightweight steel roof against lateral loading.	6-weeks
5	Non-engineered shed above utility Building. (Utility Building)	Carry out remedial works resulting from engineering assessment if necessary.	6-months