Faiza Industries Ltd.
Extended Building

R.S - 425, Baimail, Konabari, P.O.- Kashem Cotton Mill, Thana- Joydebpur, Gazipur
(24.006853, 90.337155)
1st October 2020

RSC RMG SUSTAINABILITY COUNCIL

Buildings Information

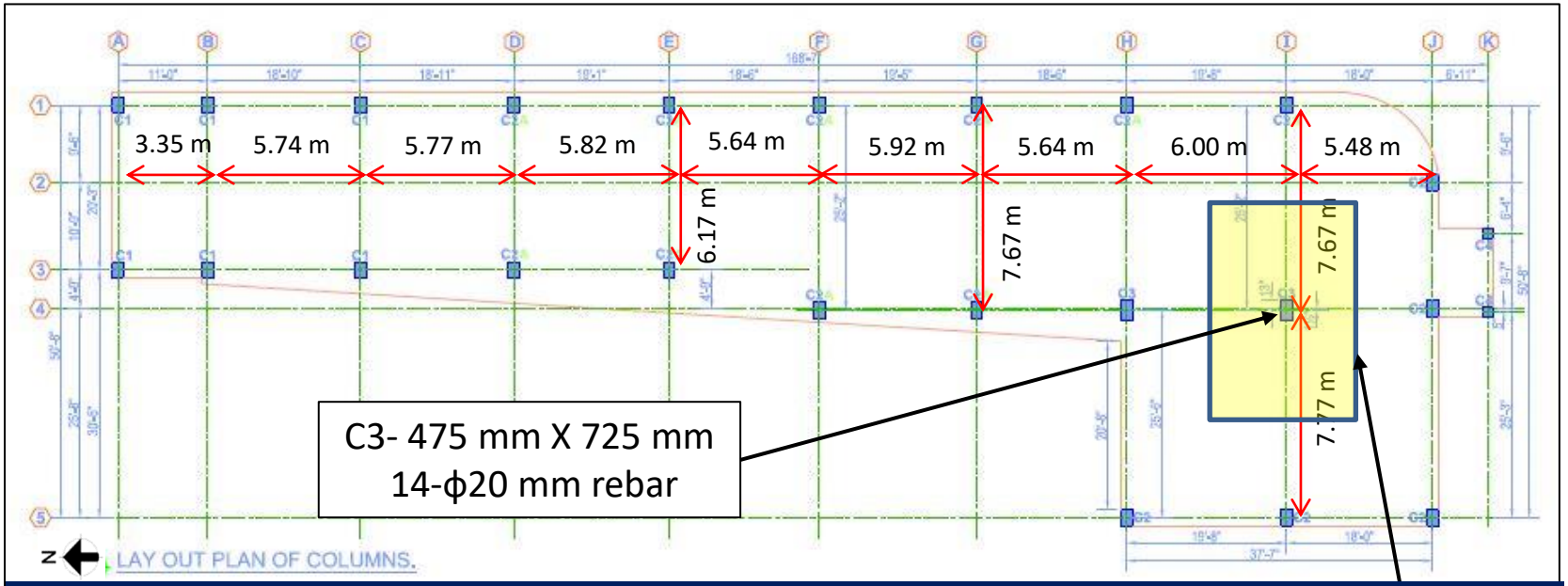
1. Production Building-2 (B+G+5)
2. Production Shed (G+1)
3. Utility Building-1 (single storied)
4. Utility Building-2 (single storied)
5. Jute Room (single storied

Observations

RSC RMG SUSTAINABILITY COUNCIL

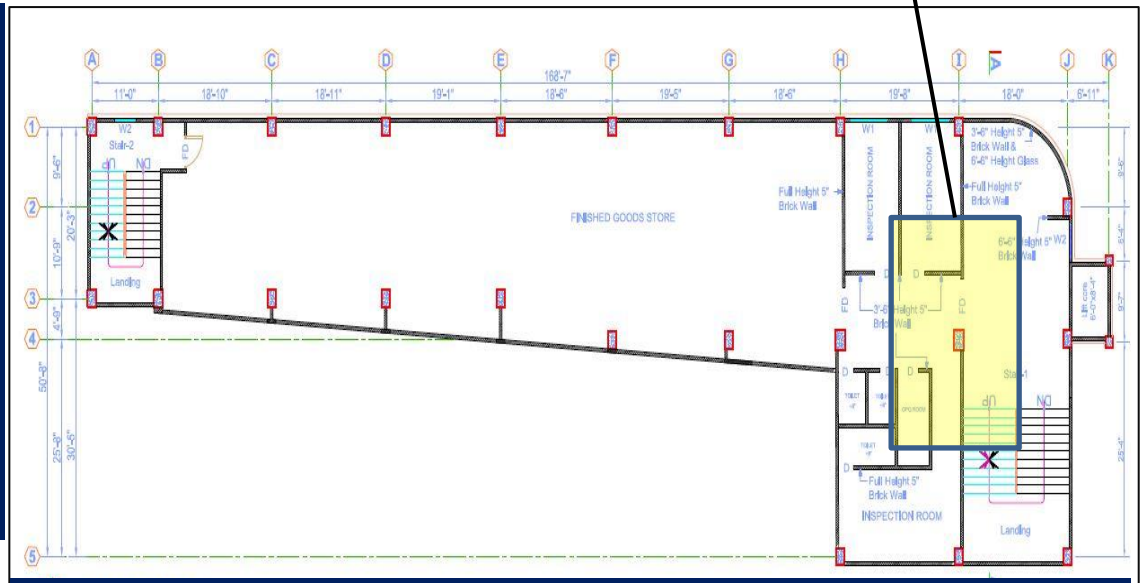
Column and Footing stressed above normal design limits

Observations: Production Building-2



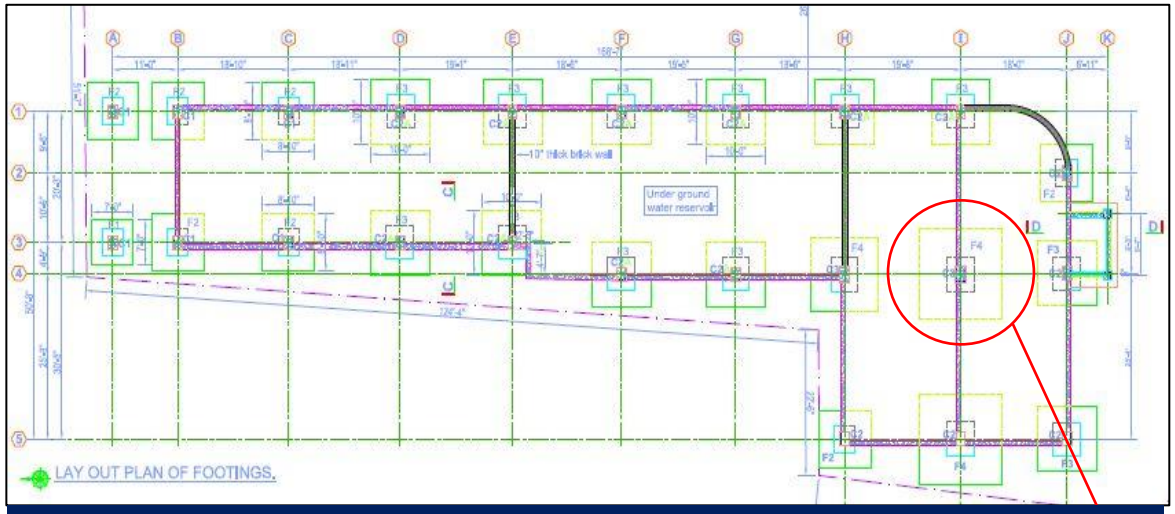
Column Layout plan

Cursory calculation indicates that column is stressed above normal design limits considering 5 kPa live load on typical floor & minimum concrete strength for stone chips. Building Engineer to review design, loads and columns stresses. Also, prepared load plan need to be revised based on floor, column and foundation capacity.

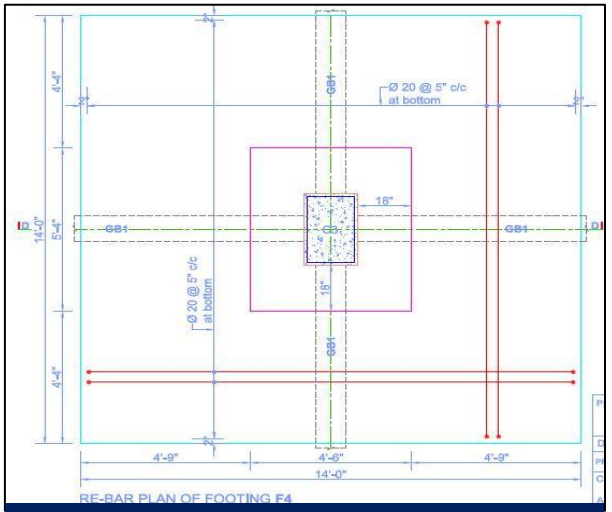


Architectural Floor Layout

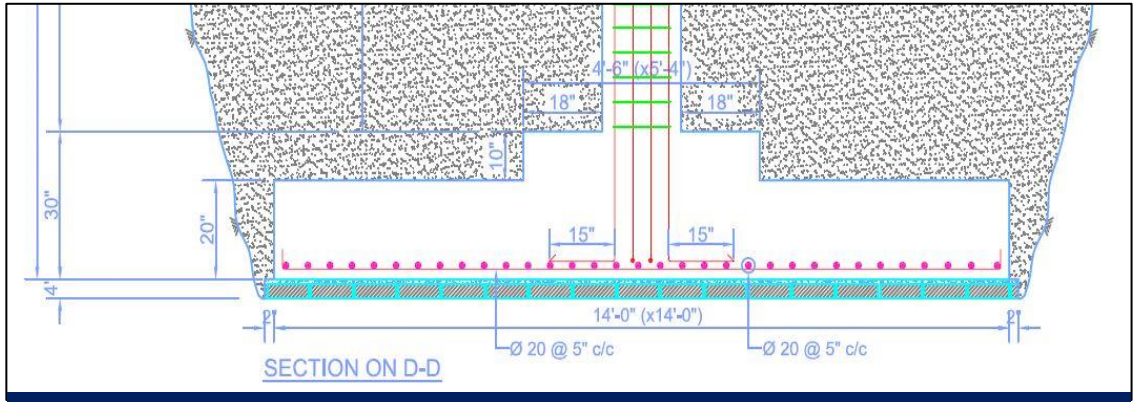
Observations: Production Building-2



Footing Layout Plan.



Footing plan



Footing section

Punching shear capacity check was performed for the footing-F4. Footing thickness is 750 mm (at punching critical zone). Column size 525X775 mm (below ground level).

Cursory calculation indicates that footing thickness is inadequate to resist punching shear considering minimum concrete strength for stone chips. Factory engineer is required to review the adequacy of footings and comply with BNBC.

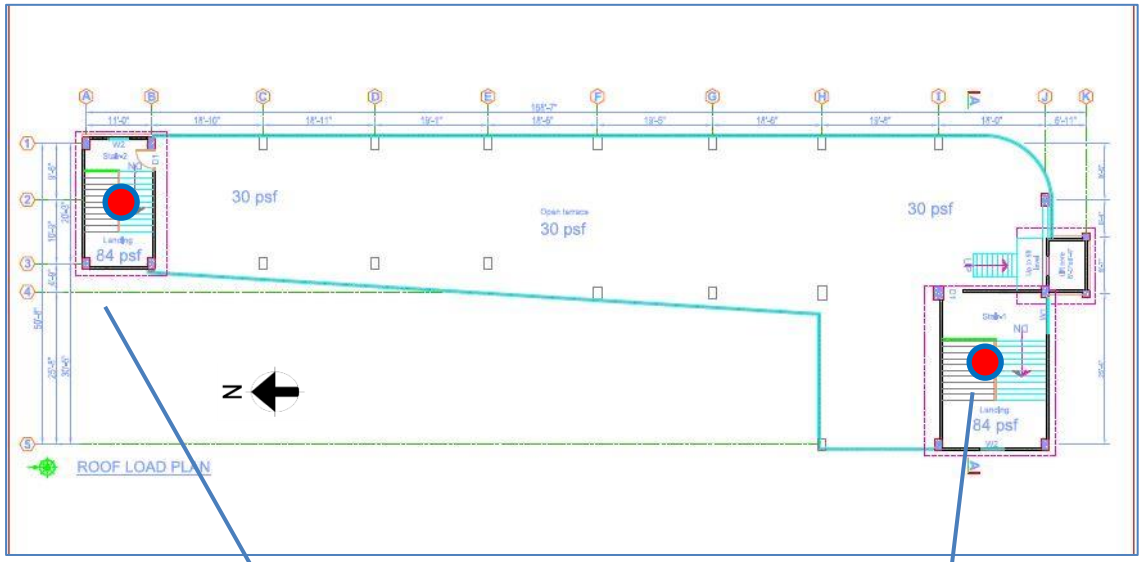
Test report is not available for the foundation members. The test report provided for the other structural members do not comply with general note of structural drawings as well as do not comply with BNBC.

Observations: Production Building-2

Discrepancies in as-built drawing

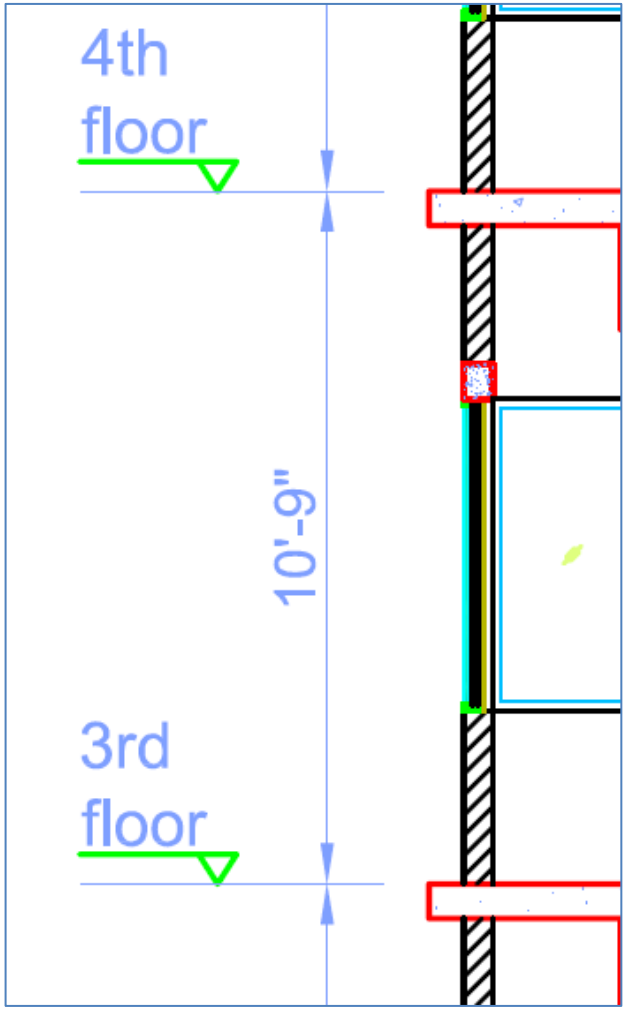
Observations: Production Building-2

Floor to floor height including slab thickness has been shown 10 feet 9 inches on drawings. But onsite floor to floor height excluding slab thickness was measured 10 feet 9 inches. Also at stair roof, plastic water tanks are not shown in load plan and architectural drawing.



Plastic water tank

Plastic water tank



Floor Height

Observations: Production Building-2

8

Corroded and exposed rebar at roof.

Observations: Production Building-2

Corrosion was observed on all exposed reinforcement on existing roof top columns. Factory must provide adequate protection to the structural elements from corrosion.

Exposed rebar at Column

Exposed rebar at Column

Exposed rebar at Column

Observations: Production Building-2

Problems Observed

Production Building-2

Item 1: Column and Footing stressed above normal design limits.

Item 2: Discrepancies in as-built drawing.

Item 3: Corroded and exposed rebar at roof.

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Priority Actions

Item No.	Observation	Recommended Action Plan	Recommended Timeline
01	Column and Footing stressed above normal design limits.	Factory Engineer to review design, loads, columns and footings stresses.	6-weeks
02	Column and Footing stressed above normal design limits.	Verify in-situ concrete strength and aggregate type by taken min. 4 nos. 100mm dia. core samples or existing cylinder test reports from ground floor columns & foundation.	6-weeks
03	Column and Footing stressed above normal design limits.	Produce and actively manage a loading plan for all floor plates within the factory, considering floor, column and foundation capacity.	6-weeks
04	Column and Footing stressed above normal design limits.	Complete implementation of any remedial works deemed necessary by the DEA.	6-months
05	Column and Footing stressed above normal design limits.	Continue to implement loading plan.	6-months

Item No.	Observation	Recommended Action Plan	Recommended Timeline
06	Discrepancy in as-built drawing	Prepare “as constructed” drawings which reflect the actual site dimensions and complete structural information.	6-weeks
07	Discrepancy in as-built drawing	Mention plastic water tank’s size and locations on load pan and architectural drawings.	6-weeks
08	Corroded and exposed rebar at roof.	All exposed reinforcement is to be protected from corrosion which may cause degradation of the concrete.	6-weeks