



Sweatertech Ltd. (Extension Building)

Plot # 898,1351, Gacha Road, Gazipur Sadar, Gazipur.

(23.939243, 90.370849)

11th February, 2018

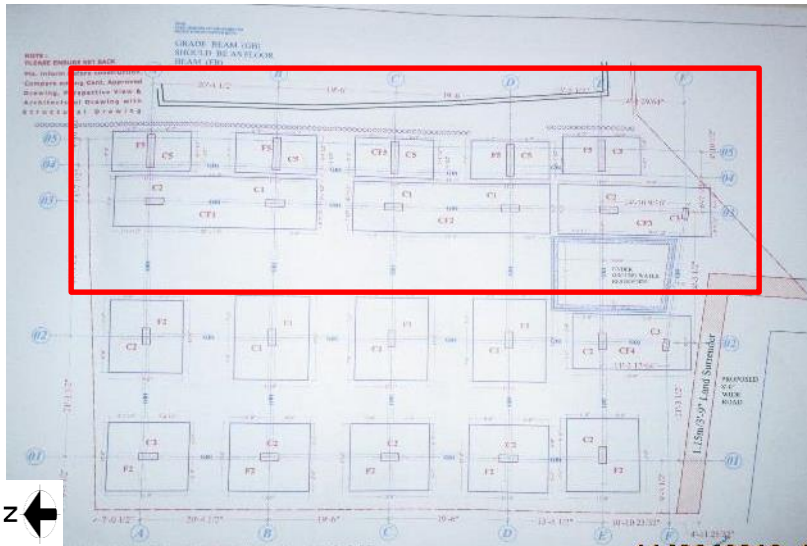




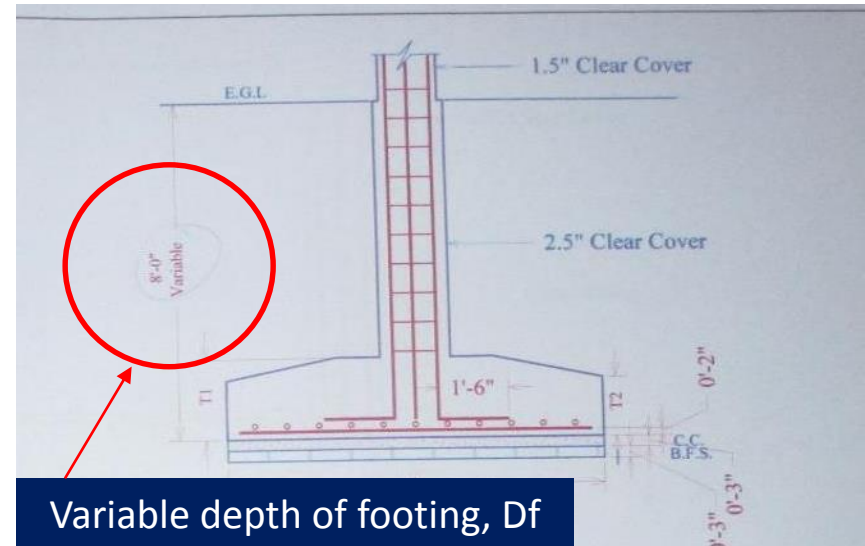
Observations



Footings to be stressed above normal design limits

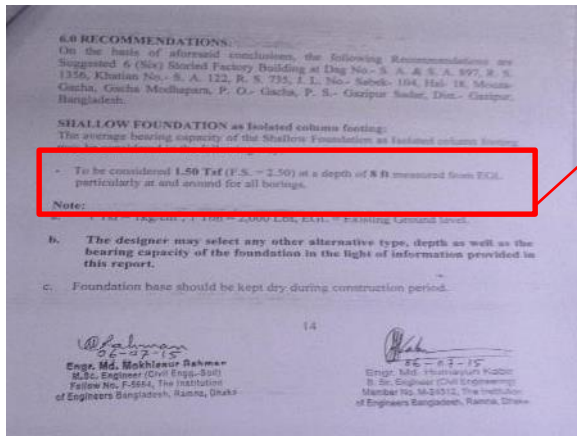


Foundation layout plan

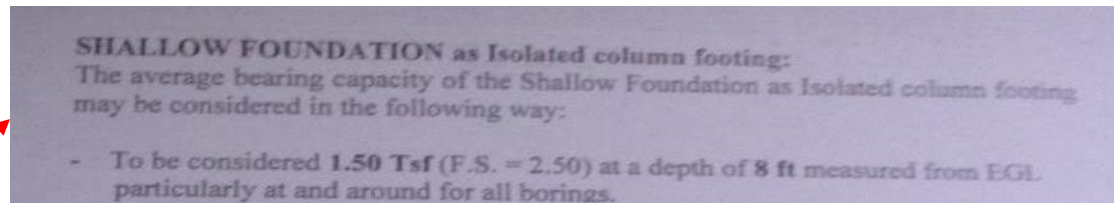


Variable depth of footing, Df

Footing cross section drawing



Recommendation of geotechnical investigation report



Recommended soil bearing capacity 1.5 Tsf (143.64 KPa) for 8 ft. (2.44 m) depth, Considering FoS =2.5

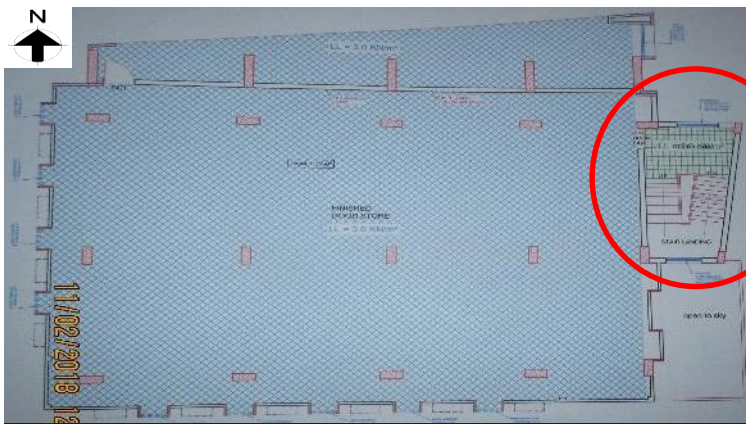
Cursory calculation indicates that footing appears to be stressed above normal design limits in marked zone. Factor of safety (FoS) is less than what is required in BNBC. Factory engineer is required to review the adequacy of footings considering actual depth of footing and comply with BNBC.



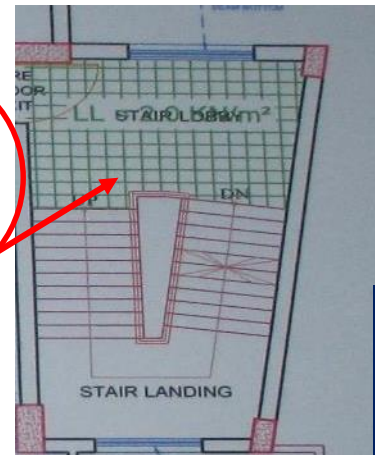
Implement floor load management program



No load management programs were visible except post of load plan. Factory is required to implement load management program as per its floor loading capacity and follow the load plans for all floors of the buildings and make sure that the workers understand the loading requirements.



Typical floor live load plan



Loading was considered 2Kpa on stair zone, which is not in comply with BNBC provision.



Problems Observed

01. Footing to be stressed above normal design limits.
02. Implement floor load management program.



Priority Actions



Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	Footing to be stressed above normal design limits	Factory Engineer to review design, loads and footing stresses.	6-weeks
2	Footing to be stressed above normal design limits	Evaluate the allowable bearing capacity of soil from geotechnical investigation report considering the actual depth of footings.	6-weeks
3	Footing to be stressed above normal design limits	Produce and actively manage a loading plan for all floor plates within the factory giving consideration to floor, column and footing capacity.	6-weeks
4	Footing to be stressed above normal design limits	Carry out remedial works where necessary.	6-months
5	Implement floor load management program	Factory is required to implement load management program as per its floor loading capacity.	6-weeks
6	Implement floor load management program	Update the load plan according to BNBC.	6-weeks
7	Implement floor load management program	Continue to implement load plan.	6-months