



Mimo Cotton Zone Textile Ltd.

Holding # 97, Sayatol Market, Surabari, Kashimpur, Gazipur

(23.969870, 90.321695)

13th November 2018

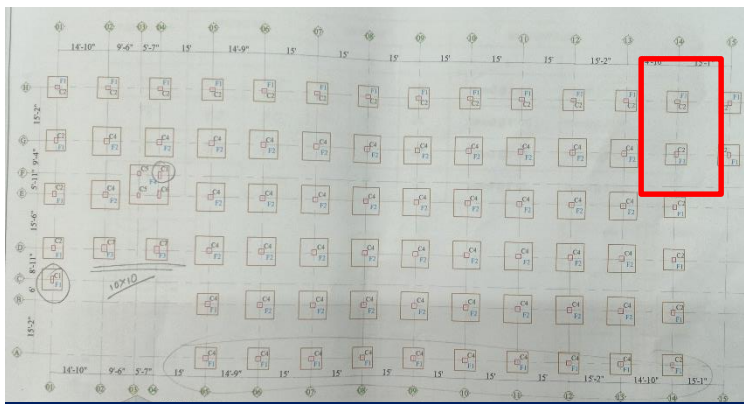




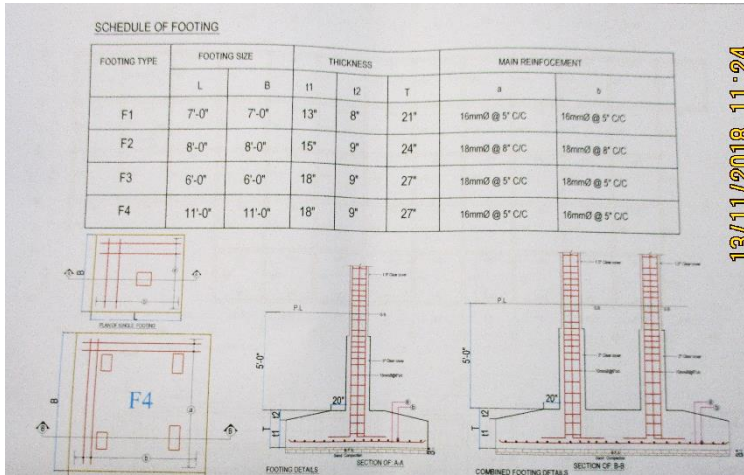
Observations



**Bearing capacity of foundation exceeds
normal design limit**



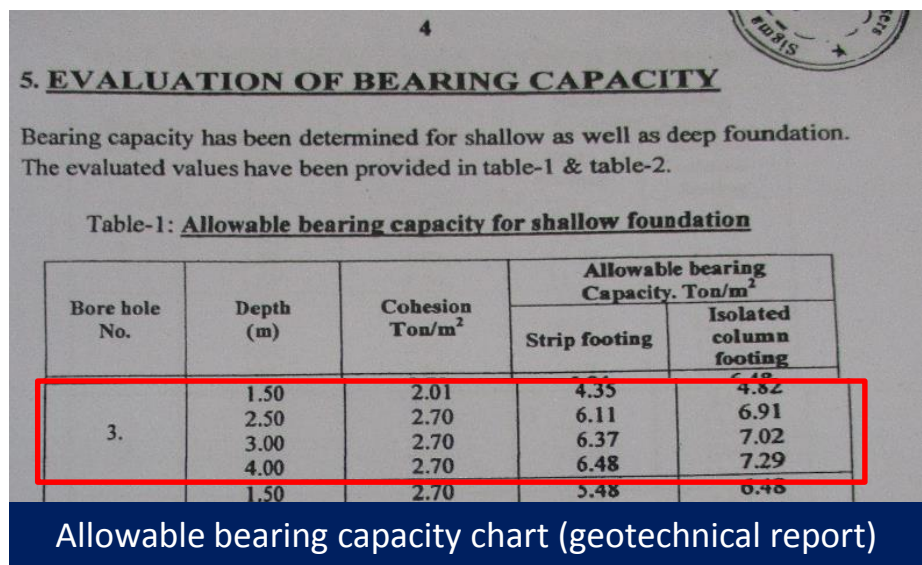
Foundation Schedule(Set-2 Drawing)



Footing Section

13/11/2018 11:24

As per provided soil test report, the factor of safety for isolated footing was found to be less than 2.5 which is below the BNBC standard. Factory is required to check the adequacy of the foundation. Moreover, depth of footing is not clear because EGL level is not mentioned in the drawing and on site EGL height is found almost 2 feet down from GB at East side.



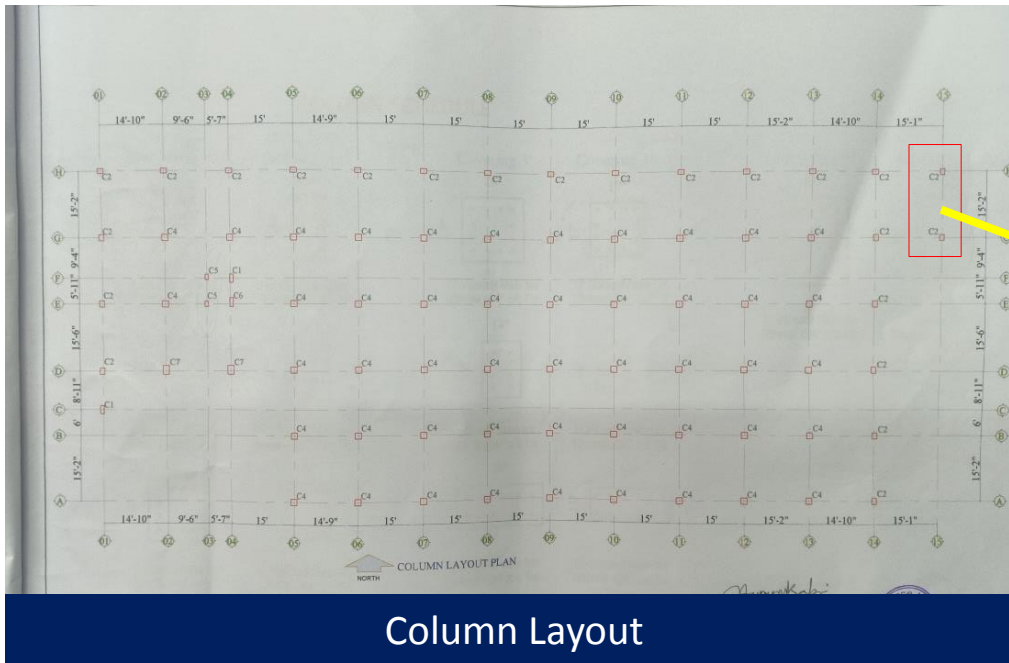
Allowable bearing capacity chart (geotechnical report)

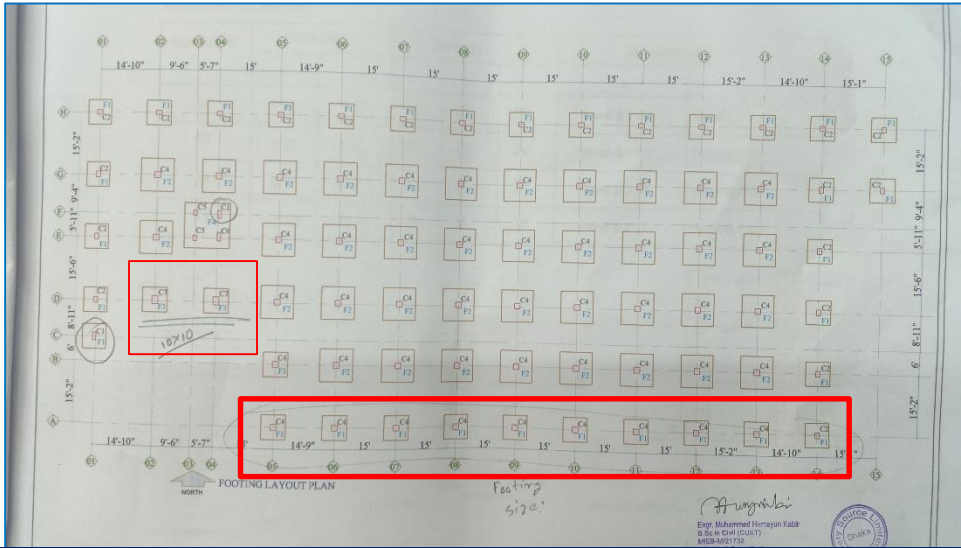


Discrepancies between provided drawing and on-site condition



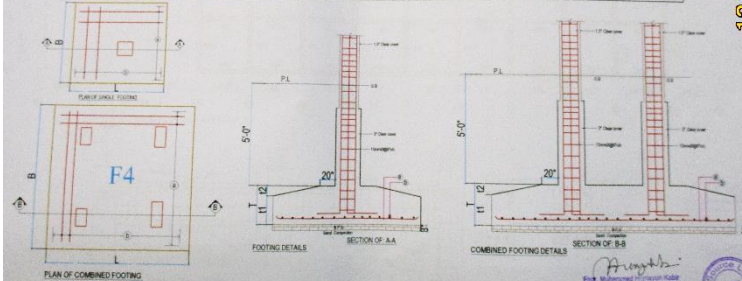
The column layout did not match with as-built structural drawing. On grid-15, two extra columns were observed on column layout in as-built structural drawing which were not found on site.
Separate steel structural was found on that grid.



[illegible]

Footings sizes are found different in construction drawings and as-built drawings. Red marked footing sizes are found less on as-built drawings than the construction drawings. Factory engineer is required to check the actual size of the footing and revised the as-built drawings accordingly.

FOOTING TYPE	FOOTING SIZE		THICKNESS			MAIN REINFORCEMENT	
	L	B	11	12	T	a	b
F1	7'-0"	7'-0"	13"	8"	21"	16mmØ @ 5" C/C	16mmØ @ 5" C/C
F2	8'-0"	8'-0"	15"	9"	24"	18mmØ @ 8" C/C	18mmØ @ 8" C/C
F3	6'-0"	6'-0"	18"	9"	27"	18mmØ @ 5" C/C	18mmØ @ 5" C/C
F4	11'-0"	11'-0"	18"	9"	27"	16mmØ @ 5" C/C	16mmØ @ 5" C/C



Footings Schedule of as-built drawings



Exposed rebar at roof



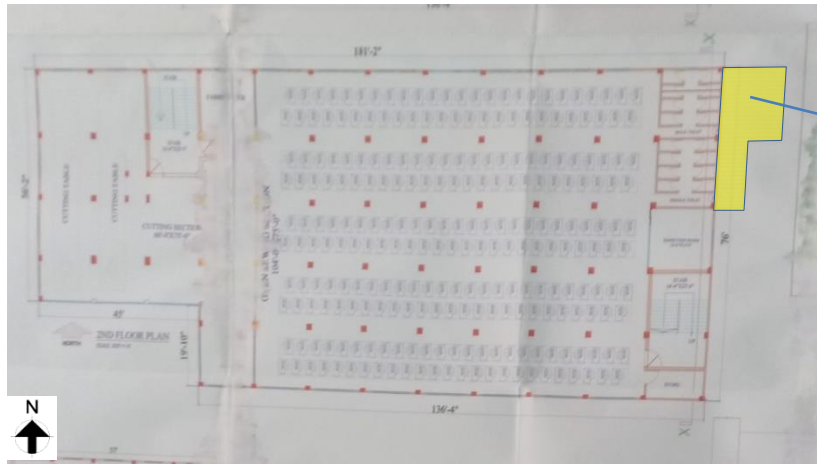
All exposed reinforcement to be protected from corrosion. Currently the exposed reinforcement is prone to corrosion.



Lack of documents for Extension portion



At east side of factory building, a two storied steel structure was found which not structurally connected with factory building. Structural and architectural drawings were not available for the two storied structure.



Floor layout plan of factory building



Undocumented steel shed



Inter frame of structure



Deck slab at 1st floor level



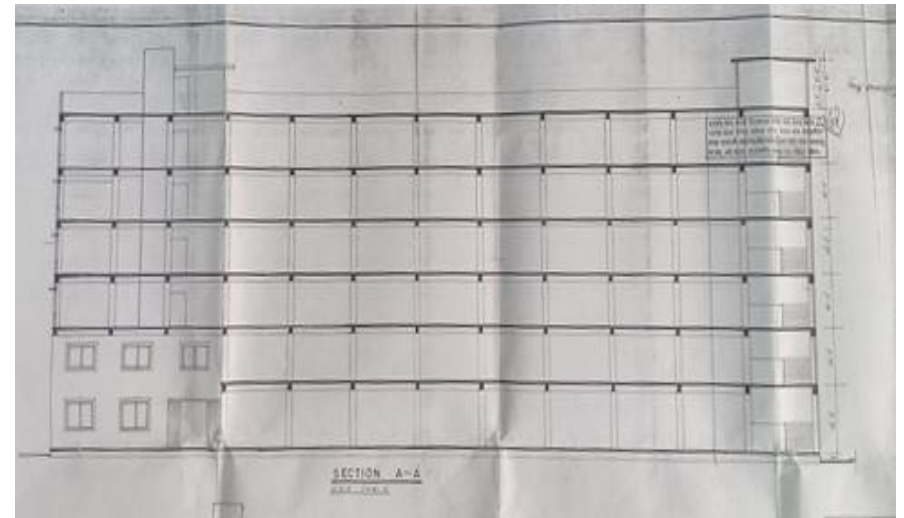
Possible vertical extension



This building is permitted for 6 (G+5) storied from local authority. Currently the building is partial 3 storied. Factory engineer is required to carried out a Detail Engineering Assessment considering BNBC provision prior to any extension work.



Current roof of factory building



Local authority Permit drawing shown 6 storied



Apparently non-engineered Shed



Apparently non-engineered shed due to poor connection between support and truss.
Building engineer to check the stability of the Shed against vertical & lateral loading.





Problems Observed

Factory Building:

- 01: Bearing capacity of foundation exceeds normal design limit.
- 02: Discrepancies between provided drawing and on-site condition.
- 03: Exposed rebar at roof.
- 04: Lack of documents for Extension portion.
- 05: Possible vertical extension.

Utility Building :

- 06: Apparently non-engineered Shed.



Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	Bearing capacity of foundation exceeds normal design limit. (Factory Building)	Factory engineer to investigate the actual depth & size of the footing and check the adequacy of the existing foundation.	6-weeks
2	Bearing capacity of foundation exceeds normal design limit. (Factory Building)	Implement remediation work if required.	6-months
3	Discrepancy between provided drawing and on-site condition (Factory Building)	Engage an Engineer to produce an “as constructed” drawings which reflect the actual site conditions with complete structural information.	6-weeks
4	Expose rebar on roof (Factory Building)	All exposed reinforcement is required to protect from corrosion with suitable method.	6-weeks
5	Lack of documents for Extension portion (Extension of Factory building)	produce an “as constructed” drawings which reflect the actual site conditions with complete structural information.	6-weeks
6	Possible vertical extension (Factory building)	In case of extension, factory engineer to be carried out further analysis and update design report following BNBC provision.	6-weeks



Item No.	Observation	Recommended Action Plan	Recommended Timeline
7	Apparently non-engineered Shed (Shed-1)	Prepare an “as constructed” drawings which reflect the actual site conditions with complete structural information.	6-weeks
8	Apparently non-engineered Shed (Shed-1)	Factory engineer to check the capacity of the lightweight steel roof against vertical & lateral loading.	6-weeks
9	Apparently non-engineered Shed (Shed-1)	Carry out remedial works resulting from engineering assessment if necessary.	6-months